SD Publication Series
Office of Sustainable Development
Bureau for Africa

Life Skills and HIV Education Curricula in Africa: Methods and Evaluations

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Technical Paper No. 119
July 2003

This document is published by the Africa Bureau Information Center, operated by the Academy for Educational Development under contract to the U.S. Agency for International Development (USAID), and is part of the Development Information Services project of USAID's Office of Development Evaluation and Information. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

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Foreword

Over the past several years the HIV/AIDS pandemic in Africa has been recognized as being more than simply a health issue. HIV/AIDS impacts every sector, including education. In the high HIV-prevalence countries of southern and eastern Africa, the education sector is currently being hit by massive teacher shortages due to death, absenteeism, and attrition as teachers fall ill, care for sick family members, or fill vacancies in other fields. At the same time, the needs of learners are changing as young people must learn at an earlier age how to protect themselves from HIV/AIDS and care for affected family members and friends.

The Sustainable Development Office of the U.S. Agency for International Development's Africa Bureau (USAID/AFR/SD) has developed a strategy for confronting the pandemic based on more than a decade of systemic education reform work. The components of the strategy are:

- strengthen delivery of HIV prevention messages to learners and teachers;
- support the Ministries of Education (MOEs) in the management of HIV/AIDS impacts on the sector; and
- support innovative delivery of education to orphans and other vulnerable children.

In addressing the first point, USAID has worked with MOEs and other donors to strengthen existing programs in life skills for HIV/AIDS prevention (referred to here as Life Skills programs). These curricula aim to effect behavior change and decrease the likelihood of HIV/AIDS infection among teachers and learners. In the course of this work, it has become apparent that there is little rigorous evaluation of existing Life Skills programs in Africa. Those who design and implement these curricula are often in the dark about what has and has not worked elsewhere.

This report reflects an effort to pull together what we know about existing classroom-based Life Skills programs. Several African programs that have been evaluated are briefly described, along with research findings and lessons learned. The authors also developed content criteria for a theoretical analysis of ongoing Life Skills programs in French-speaking African countries.

The authors of this document are Georges Tiendrebéogo, Suzanne Meijer, and Gary Engelberg of Africa Consultants International. This report is part of a series of USAID/AFR/SD documents that provide guidance on Life Skills, including *Tips for Developing Life Skills Curricula for HIV Prevention Among African Youth: A Synthesis of Emerging Lessons* and *A Survey of Non-Formal Life Skills and HIV Prevention Literature for Young People in Africa.* The audience for this series is practitioners, including USAID field missions, MOEs, and partner organizations, working to deliver HIV/AIDS prevention services to the young people of Africa.

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Acknowledgements

We would like to express our gratitude to:

- School planners and curriculum developers, National AIDS Control Program advisors, Peace Corps volunteers, and UNAIDS/UNESCO/WHO/UNICEF staff who developed the curricula and models discussed in this study, and who took responsibility for talking about sex to adolescents in and outside of school settings to prevent further spread of the HIV/AIDS epidemic and to ensure that people living with HIV/AIDS get the support they need from their communities;

- Herman P. Schaalma (Maastricht University), whose research on planned development and evaluation of school-based AIDS/STD education provided valuable material for designing this desk study; and

- The USAID Africa Bureau's Office of Sustainable Development (AFR/SD); Academy for Educational Development, the SARA Project; and Africa Consultants International for supporting the study.

- Jeff Reed and Peg Hausman of The Mitchell Group and Christine Chumbler of the Africa Bureau Information Center for providing the final editing and publishing expertise to insure a polished finished product.

It should be noted as well that the initiative for this study came during an AFR/SD-sponsored workshop conducted by the University of Natal's Health and Economics AIDS Research Division (HEARD) in Durban, South Africa, in 2000, which Brad Strickland (AFR/SD) and Tiendrebéogo attended.

Abbreviations

ABEL	Advancing Basic Education and Literacy
ACI	Africa Consultants International
AED	Academy for Educational Development
AFR/SD	Africa Bureau Office of Sustainable Development (USAID)
AIDS	acquired immune deficiency syndrome
BCI	Behavioral Change for Interventions
CAR	Central African Republic
CASE	Community Agency for Social Enquiry
CERPOD	Centre d'Etudes et de Recherche sur la Population pour le Développement
CVT	counseling and voluntary testing
EC	European Commission
ESAR	East and Southern Africa Region
FBOs	faith-based organizations
GDE	Gauteng Department of Education (South Africa)
HEARD	Health and Economics AIDS Research Division (University of Natal, South Africa)
HFLE	health and family life education
HIV	human immunodeficiency virus
IEC	information, education, and communication
IPPF	International Planned Parenthood Federation
KAP	knowledge, attitudes, and practices
MTCT	mother-to-child transmission
NGOs	nongovernmental organizations
PLWHA	people living with HIV/AIDS
PPASA	Planned Parenthood Association of South Africa
SARA	Support for Analysis and Research in Africa
SHAPE	School-Based HIV/AIDS and Population Education Program
SHEP	School Health Education Program
SIDA	syndrome d'immuno-déficience acquise (AIDS)
SSA	sub-Saharan Africa
STI	sexually transmitted infection
UN	United Nations
UNAIDS	Joint United Nations Program on HIV/AIDS
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
WCED	Western Cape Province Department of Education (South Africa)
WHO	World Health Organization

Executive Summary

According to UNAIDS, the HIV/AIDS epidemic continues to spread at an alarming rate in sub-Saharan Africa (SSA), and every indication is that the number of new infections in the 15–24 age group will increase exponentially over the next decade. Young people are among the hardest hit by the epidemic. At the same time, young people present an opportunity for halting it, because they are amenable to change. In the words of one proverb, "It is easier to straighten a tree when it is still young than when it is old."

At the moment, several different types of HIV/AIDS prevention interventions target young people in SSA. Some offer HIV/AIDS education as part of the school curriculum; others offer it through extracurricular activities targeting in- or out-of-school youth. The majority of extracurricular programs are provided by nongovernmental organizations (NGOs) or faith-based organizations (FBOs). Most programs start as pilots or projects, with the aim of scaling up to cover a larger geographic area and reach younger adolescents.

Most of these activities have focused on disseminating information and discouraging risky sexual practices. Generally, such campaigns merely improve young people's knowledge about HIV/AIDS; they seldom strengthen attitudes and intentions favoring HIV/AIDS prevention, let alone lead to risk-reducing behavior. In contrast are innovative interventions such as *skills-based health education for HIV prevention*, referred to here as *Life Skills programs*. These are designed to:

- reinforce adolescents' personal risk perception, self-esteem, and self-efficacy;
- provide them with skills in such areas as assertiveness, communication, and decision-making, as well as coping with peer pressure and emotions; and
- instill compassion and antidiscrimination.

There is evidence that these skills enable young people to translate information about HIV/AIDS into protective behaviors.

The purpose of this study, commissioned by the basic education team of the U.S. Agency for International Development Africa Bureau's Office of Sustainable Development (USAID/AFR/SD), was to compile lessons learned from Life Skills programs in SSA by reviewing evaluation reports. However, since few such programs have been evaluated, a theoretical analysis was also made of a sample of curricula used in schools in French-speaking Africa.

Overall, this study suggests that the concept of Life Skills education is still difficult to grasp in program documents, and the term "Life Skills" remains imprecise and even unclear to most actors.

Of the emerging activities in support of Life Skills education in sub-Saharan Africa, most do not have integrated evaluation components, and few of those that have been evaluated meet the minimum criteria for methodologically sound evaluation. Overall, few programs have been evaluated, and, where data do exist, little has been synthesized, thereby leaving those planning Life Skills programs with limited or no guidance and information on what has and has not worked effectively in the past.

Nonetheless, the reviewers were able to draw some conclusions from the data they had. The study's main findings and recommendations are:

- *Life Skills education programs should begin early in primary school*.

As a group, primary school-age children have a very low prevalence of HIV infection. They have not yet formed sexual behavior patterns, so they are more amenable to change than older adolescents who may already be engaged in risky behavior.

- *Life Skills education programs should be data-driven and theory-based.*

Currently, most interventions are still based on program managers' perceptions of problems and their views of how these should be dealt with, rather than on systematic intervention mapping and planning processes. Randomized controlled trials, such as those conducted in Namibia and Tanzania, show that planned and theory-based Life Skills education programs as developed in industrialized countries could also be developed and implemented successfully at both primary and secondary levels in African settings. These interventions have led to delay in sexual initiation among young people who were sexually inexperienced. In addition, other HIV-related behaviors (violence or drug and alcohol use) improved as well. Some intentions regarding preventive behavior were altered, as were self-perceptions of competency regarding various aspects of condom use and condom negotiation.

- *Programs must move beyond pilots and be implemented on a large scale.*

To be effective and contribute to preventing the further spread of HIV/AIDS among young people, programs must be implemented and diffused on a large scale. In sub-Saharan Africa, sexual intercourse is an issue of great social, cultural, and religious significance. Experience with the Peace Corps volunteers' Life Skills program indicates that the most successful programs seem to be those that anticipate large-scale adoption, implementation, and diffusion by working from an early stage with, and winning the support of, stakeholders (e.g., young people, parents, local and religious leaders, NGOs, etc.), removing policy barriers, and changing service providers' prejudices.

- *Life Skills should be a separate topic rather than integrated throughout the existing curriculum.*

In most countries, HIV/AIDS facts—and, to a lesser extent, elements of Life Skills education—are integrated throughout the standard curriculum. The resulting curriculum overload and the large number of teachers to be trained render most programs unlikely to be sustained. Educators have a better chance of succeeding with stand-alone Life Skills programs or a special workshop on sexuality, HIV/AIDS, and related risky behaviors—which includes a Life Skills training component—within a subject like health education or biology.

- *Teachers or facilitators of Life Skills must be well trained in participatory methodologies.*

Life Skills education can succeed when teachers use modern participatory methods and experiential learning techniques. However, most teachers are reluctant to talk about sexuality, and the predominant teaching techniques involve textbooks and a didactic approach. In most countries, teachers do not receive adequate training in participatory methodologies and are not familiar with role-play techniques. In contrast, NGOs have demonstrated the potential of innovative approaches to training, skills building, and material development and dissemination. Thus in addition to their contribution to education for out-of-school youth, NGOs could support the school system by training teachers in HIV/AIDS and sexuality pedagogy using modern approaches.

- *Life Skills programs should include data collection and evaluation*.

So far, HIV curriculum developers have paid little attention to evaluating effects, processes, and outcomes. A well-planned development and evaluation process, which necessarily includes a needs assessment and systematic thinking about learning objectives, could improve the quality of Life Skills programs.

- *More attention should be paid to out-of-school youth*.

The education sector has not yet fully addressed the need to educate out-of-school youth in Life Skills. Interventions targeting this population are still sporadic and based on NGOs' goodwill. Uncertainty about funding, however, means that NGOs cannot fully play their role.

There is a need to advocate for Life Skills programs to be understood and integrated into every national strategy in sub-Saharan Africa as a component of reproductive health programs for all children and adolescents. Donors, NGOs, and UN agencies should collaborate with national authorities to build the education sector's capacity to design, implement, monitor, and evaluate Life Skills programs and related activities in all countries. This calls for a concerted effort to create an enabling environment and to strengthen human resources.

Introduction

Young people are at the center of the HIV/AIDS epidemic. Their behaviour, the extent to which their rights are protected, and the services and information they receive can help determine the quality of life of millions of people. Young people are particularly susceptible to HIV infection and they also carry the burden of caring for family members living with HIV/AIDS. Around the world, AIDS is shattering young people's opportunities for healthy adult lives. Nevertheless, it is young people who offer the greatest hope for changing the course of the epidemic.

— Children and Young People in a World of AIDS (*UNAIDS, 2001b*)

Context: A Window of Hope

At the 12th International Conference on Sexually Transmitted Infections and AIDS in Africa, held in Ouagadougou, Burkina Faso, December 9–13, 2001, Michel Carael, professor of medical sociology of the University of Belgium, stated in his plenary presentation, "The key to stopping the epidemic lies in a massive prevention effort for and with young people...If the next decade is to be different, we have to act now." He reminded his audience that the declines in new infection rates in Uganda and Zambia first appeared among young women under age 20. According to Professor Carael, who is currently in charge of monitoring and evaluation for the Joint United Nations Program on HIV/AIDS (UNAIDS) in Geneva, this has been the result of concerted action at the central and community level.

Professor Carael's presentation echoed the words of consultant Debbie Gachuhi of the United Nations International Children's Fund (UNICEF) Eastern and Southern Africa Region Office (1999): "Young people, especially those between 5 and 14 years, both in-school children and out-of-school youth, offer a window of hope in stopping the spread of HIV/AIDS if they have been reached by Life Skills Programmes. In the absence of a cure, the best way to deal with HIV/AIDS is through prevention by developing and/or changing behaviour and values."

The Current AIDS Situation Among Young Africans

The latest statistics remind us of the urgency of developing effective responses to the problem of HIV/AIDS infection among the young. According to the UNAIDS annual report, an estimated 10.3 million people age 15–25 are living with HIV/AIDS. Half of new cases of HIV infection in the world occur in young people between the ages of 15 and 24. Throughout the world, 7,000 young people become infected every day with HIV. Sub-Saharan Africa, the region hardest hit, is home to more than 70 percent of young people worldwide living with HIV/AIDS and to 12.1 million orphans, who represent 90 percent of the children in the world orphaned by AIDS.

Despite progress in such countries as Uganda and Zambia, studies conducted in many African countries show that the HIV epidemic continues to spread at an alarming rate, especially among young people. Prevention initiatives or programs implemented by governments and civil society have not yet had the large-scale impact on behavioral change hoped for among young people. The following description of the current situation, drawn from the UNAIDS document *Children and Young People in a World of AIDS—2001* (quoted frequently below), is sobering. Indeed, it raises serious questions about the effectiveness of our efforts to date.

Ignorance

Ignorance about the epidemic remains pervasive among most African young people, many of whom still do not know how to protect themselves from HIV. In Mozambique, for example, 74

percent of young women and 62 percent of young men age 15–19 are reportedly unaware of any way to protect themselves. Half of the teenage girls in sub-Saharan Africa do not realize that a healthy-looking person can be living with HIV. Many young people do not believe that AIDS is a threat to them. Almost two-thirds of sexually active girls aged 15–19 in Haiti do not believe they run the risk of HIV infection, and more than half of their Zimbabwean counterparts share that perception.

Early Sexual Activity

A significant number of adolescents become sexually active between the ages of 10 and 15, without the benefit of the necessary information, skills, and services to protect themselves from HIV. Professor Carael noted that the earliest onset of sex for women is found among poor urban populations. Programs targeting young people in and out of school often fail to acknowledge such early sexual activity or begin addressing this issue only after children have already become sexually active. UNAIDS tells us that contraceptive use among sexually active young people is low, with consequences that can include unwanted pregnancies, induced abortions, sexually transmitted illnesses (STIs), and, more recently, HIV infection.

Beyond the immediate consequences of early sexual activity for young people, the results of new research presented by Professor Carael show a correlation between early age of first sex and an increased incidence of premarital partners, extramarital partners, and divorce. This means that the subsequent direction of a young person's emotional and relational life may, in a sense, be determined by the precocity of sexual relations.

Vulnerability

In a context of deteriorating socioeconomic conditions and increased inequality, biological, social, and economic factors make young women especially vulnerable to HIV, too often leading to infection soon after they become sexually active. In sub-Saharan Africa young women are two to seven times more likely to be infected with HIV than are young men in the same age group. A study in Zambia found that within a year of becoming sexually active, 18 percent of young women surveyed were HIV-positive.

Having more than one partner seems to be even more dangerous for young women than it is for men. Statistics presented by Professor Carael in Ouagadougou show major increases in HIV prevalence as girls move from one to four partners, but a much slower rise in HIV infections with increasing numbers of partners for men. Unprotected sex with older men can also increase the vulnerability of young women, the largest age gaps between young women and their older male partners being found among 17- to 18-year-old girls.

According to Professor Carael, the cumulative effect of these biological and socioeconomic factors on young women can increase their risk of infection from a single exposure to HIV anywhere from 10 to 300 times! With figures such as these, it is clear we need to help young people develop the life skills they must have to avoid HIV infection.

Life Skills

For many years, responses to the problem of high HIV prevalence among young people have focused on information, education, and communication (IEC) materials designed to reach them with the knowledge they need to protect themselves. But the hoped-for changes in behavior and attitudes in response to this flood of information have not materialized. Study after study has shown little correlation between information and behavior change.

The search for strategies that would have a significant impact on reducing HIV/AIDS infection among young people in sub-Saharan Africa stresses the need to develop an approach that goes beyond prevention information. In addition to basic facts about the means of HIV or STI transmission, the risks of infection, and how to protect oneself, young people need to develop self-esteem, self–confidence, and self-efficacy. They need practical skills to cope with peer pressure, solve problems, be assertive, negotiate safer sex practices, and develop life plans. Increasingly, attempts are being made to couple essential information with skills-based health education. Under the title of Life Skills, these programs have been or are being developed in many countries in sub-Saharan Africa for both formal and nonformal education settings. Debbie Gachuhi (1999) describes them well in her study:

> Life Skills programmes aim to foster positive behaviours across a range of psycho-social skills, and to change behaviours learned early, which may translate into inappropriate behaviour at a later stage of life. Life Skills programmes are one way of helping children and youth and their teachers to respond to situations requiring decisions which may affect their lives. Such skills are best learned through experiential activities which are learner centred and designed to help young people gain information, examine attitudes and practice skills. Therefore Life Skills education programmes promote positive health choices, making informed decisions, practising healthy behaviours, and recognising and avoiding risky situations and behaviours.

In response to detractors of such programs, she added that "research shows that these programmes do not lead to more frequent sex or to an earlier onset of sexual activities, as opponents fear. Nor do they lead young people to promiscuity."

Professor Carael's presentation in Ouagadougou also insisted on the importance of Life Skills, saying there needs to be "less emphasis on reproduction, and more on interpersonal sexual relations." He explained that too often sex education is limited to "the biology of reproduction or the citing of moralizing slogans from the Bible or the Koran, without concrete exploration of emotions and constraints of adolescent sexuality." He went on to praise the effectiveness of "peer education with gender sensitivity and Life Skills," adding that "the key to sexual responsibility is the education of young people by young people that puts concepts like [stereotypical] masculinity and the search for multiple-partner relationships into question."

Sexologist and educator Valérie Lépine, an African Consultants International (ACI) consultant, talks of Life Skills education as also including the need for skills to make responsible decisions about relationships and sexual intercourse, avoiding risky behavior such as drug use and unprotected sex, and knowing how to negotiate protected sex when one is ready for a sexual relationship. She underlines the need for communication skills and skills to manage emotions as well as practical skills, such as how to use a condom. Also important, according to Lépine, are thinking and critical reasoning skills, such as the ability to recognize that a situation might become risky or violent before getting oneself into it. Finally, she emphasizes the skill to know how and where to ask for help and support.

This document contains findings and issues in Life Skills education identified during a desk study funded by the USAID/AFR/SD. The study examined selected HIV/AIDS Life Skills curricula and, where applicable, information found in program reports of organizations that have designed and/or implemented Life Skills activities. These groups include NGOs, alternative schools, community learning centers, and other donor-supported programs.

Section 1 first briefly describes the issues surrounding the AIDS epidemic among youth in Africa and HIV/AIDS education, then reviews the literature on HIV/AIDS interventions targeting young people in Africa.

Section 2 describes this study: methodology used, materials collected, and study limitations.

Findings are presented in Section 3 under three headings corresponding to the structure of the evaluation enquiry: Section 3.1 summarizes the types of HIV/AIDS interventions targeting youth; Section 3.2 synthesizes available evaluation reports on Life Skills programs in Eastern and Southern African Region (ESAR); and Section 3.3 presents a theoretical analysis of selected curricula in French-speaking countries.

In conclusion, Section 3.4 summarizes the lessons learned and recommendations. A companion volume, *A Survey of Nonformal HIV Prevention Literature Aimed at Young People in Africa,* examines a selection of comic books, photo novelas, magazines, and videos offering information on preventing and dealing with HIV/AIDS infection, many of which include material reinforcing Life Skills. Together, these studies map promising new directions for those involved in the struggle against HIV/AIDS among Africa's youth.

1. HIV/AIDS and Young People in Africa: Important Issues

1.1 Cost of Delayed Action: The Potential Negative Impact of the AIDS Epidemic

AIDS has shattered all the realities of sexual behavior. Before the advent of AIDS, a youthful mistake could lead to an STI or an unwanted pregnancy. Today, the same mistake can cost a life.

— Centre d'Etudes et de Recherche sur la Population pour le Développement [CERPOD]

HIV/AIDS data often are not available for younger age groups or by gender in sub-Saharan Africa because testing is commonly done at prenatal clinics, and few young people attend these clinics. Prevalence data are also abstracted from death rates. Although many young people become infected, they do not die of HIV/AIDS for an average of 10 years, when they are in their 20s. However, high rates of STIs and pregnancy (the "visible indicator") among adolescents highlight the risky sexual behavior and vulnerability of this group. Studies indicate that for most young people in Africa, sexual activity is likely to begin between the ages of 15 and 17 (Meijer and Schaalma, 1998; CERPOD, 1997), though sexual activity among younger ages has been noted in specific countries and subgroups.

The primary mode of HIV transmission among young people in sub-Saharan Africa is unprotected penetrative sex, largely facilitated by physical and psychological immaturity. Generally, the reasons for early sex, unwanted sex, and inconsistent condom use range from social pressure through coercion by peers or older men in authority to outright violence. Girls are particularly vulnerable. Complex and unhealthy gender expectations and gender-power differences render young girls less able to exercise control over their lives and bodies than their male counterparts. Boys and young men are tacitly or openly encouraged to adopt aggressive, even predatory sexual behavior. Furthermore, in some parts of the continent, older men often target young girls because they are believed to be "safe"—that is, uninfected with HIV. HIV infection rates are reportedly two to seven times higher among adolescent girls age 15–19 than among their male counterparts, and three times higher among women age 20–24.

In sub-Saharan Africa, the proportion of school-age youth actually enrolled in school is about one-half of the total eligible population (Carballo and Kenya, 1994), and of those who enter school, only 50 percent complete eighth grade. There are indications that the AIDS epidemic has begun to worsen this situation in high-prevalence areas. Where schooling requires a financial outlay, fewer children and their families will be able to afford education because of the direct loss of family income from AIDS-related illness and death, together with the cost of care and funerals. While efforts are being made to increase the literacy rate, especially among girls, HIV/AIDS may increase educational disparities between boys and girls because girls are frequently removed from school to nurse parents, siblings, or relatives; to take over the productive work of their family members; or to save the costs of school fees.

At the same time, HIV/AIDS is draining funds from Africa's school systems. As extended families grow larger to absorb orphaned children, available income decreases while more resources are needed for illness and death. Thus the community contributes less money to the school. At the level of the education system, funds may be needed for health-related personnel costs, such as staff treatment and care, insurance, death benefits, training and paying replacements for affected personnel (who are often still on the payroll), and implementing an effective HIV/AIDS prevention education program. Meanwhile, more funds might be

needed for new clients and the roles the education system may need to adopt: scholarships for orphans, teacher training in counseling, new curricula in family life education, programs for out-of-school children, new school-based programs for income generation, and the like. Yet the Ministry of Education may receive a diminishing proportion of the national budget as demand for resources increases from other sectors.

1.2 Investing in Youth: The Backbone of Any Country Development

It is a matter of survival, so it must be taught. If you want to perish, then leave it. Be it in or outside of class. A class environment is ideal.

— Primary school teacher in Uganda, quoted in Barnett, Koning, and Francis, 1995

While young people are hardest hit by the epidemic, they also present an opportunity. They are more amenable to change than their elders, for as a proverb puts it, "It is easier to straighten a tree when it is still young than when it is old." Thus, because young people are the backbone of any country's development (Engelberg, 1993), to create an "AIDS-free generation," schools now cover topics such as adolescent reproductive health and HIV/AIDS prevention. This is often complemented by nongovernmental organization (NGO) interventions targeting out-of-school youth. Educating students, who comprise up to 16 percent of the total population in developing countries, is an investment in the future.

Kelly (2000) repeatedly states that, in the face of the HIV/AIDS epidemic, the education sector can generate hope because of its potential to work at the three levels where AIDS-related interventions are needed:

> *When there is no infection*: by providing knowledge that will inform self-protection; fostering development of a personally held, constructive value system; inculcating skills that facilitate self-protection; promoting behavior that will lower infection risks; and enhancing capacity to help others to protect themselves against risk.
>
> *When infection has occurred*: by strengthening the students' ability to cope with personal and/or family infection; promoting care for those who are infected; helping young people to stand up for the human rights that are threatened by their personal or family HIV/AIDS condition; and reducing stigma, silence, shame, and discrimination.
>
> *When AIDS has brought death*: by helping survivors to cope with grief and loss, to reorganize life after the death of family members, and to assert personal rights.

1.3 Evaluation: The Evidence of AIDS Education Targeting Youth

So far, HIV/AIDS prevention programs targeting young people in sub-Saharan Africa have been largely focused on transferring knowledge about STIs/HIV/AIDS from teachers to students (Tiendrebéogo, 1999). However, research focused on understanding adolescents' behavior has shown that knowledge alone is not sufficient to change behavior. Kirby (1995) suggests that to have a meaningful impact on the HIV/AIDS pandemic among youth in sub-Saharan Africa, prevention information must be coupled with skills that make it likelier that individuals will translate their knowledge into action (UNAIDS, 1997b).

A number of recent studies have indicated that school-based HIV/AIDS prevention and sex education programs may increase students' knowledge about AIDS, change attitudes toward risky behaviors, delay onset of sexual intercourse, and increase condom use among sexually active students. Programs with a sound theoretical grounding in social learning or social theories appear to be the most successful in influencing risky behaviors. The majority of the studies have been conducted among older adolescents (middle or high school students) in Western countries (Klepp et al., 1997).

Skills-based health education for HIV prevention. Referred to here as Life Skills, this approach provides young people with skills such as self-esteem, high self-efficacy, assertiveness, communication and decision-making, and coping with emotions and peer pressure, as well as instilling compassion and antidiscriminatory attitudes, using interactive teaching methodologies. Young people can then use these skills to translate information about HIV/AIDS into protective behaviors. Life Skills courses can be implemented in formal primary and secondary school classrooms as well as with out-of-school youth in nonformal settings.

Some African governments, donors, NGOs, and others have enthusiastically embraced the promise of Life Skills and have developed or are developing curricula for implementation in schools and communities. A range of programs have been initiated, from those integrated into existing school curricula to stand-alone courses, and those programs or activities generally do contain some of the elements of Life Skills education.

Unfortunately, of the emerging activities in support of Life Skills programs in sub-Saharan Africa, most do not have integrated evaluation components. Overall, few programs have been evaluated, and few of those that have been evaluated meet the minimum criteria for methodologically sound evaluation. Where evaluation data do exist, much has not been synthesized, thereby leaving those planning Life Skills programs with limited or no guidance and information on what has and has not worked effectively in the past. In the absence of such evidence, we are "knitting without a pattern!" (Oakley et al., 1995).

Development of HIV/AIDS prevention education. Since the start of the AIDS epidemic, most AIDS prevention activities targeting adolescent students have been organized through mass media or brochure campaigns, or through school-based family life education courses, all focusing primarily on transfer of knowledge, risk communication, and discouraging risky sexual practices (Schaalma, 1997; Sy, 1997; UNAIDS, 1999a). This approach to AIDS prevention was based on the assumption that students will act in their own interest once informed of the risk and the benefits of changing their behavior. Generally, the effects of such programs are limited to improving young people's knowledge about AIDS. Enhancing attitudes and intentions favoring AIDS prevention is seldom achieved, let alone achieving risk-reducing sexual behavior (Moses and Plummer, 1994; Schaalma, 1997; Schaalma and Meijer, 1998; Meijer and Schaalma, 1998; UNAIDS, 1999b).

Most of these interventions comprise three to six lessons of one class period each, primarily based on informal conceptualizations and designed without a needs assessment among young people. We know now from experience that even though information is necessary to bring about behavior change, it is not sufficient by itself. It is also necessary to take into consideration other determinants such as past experiences, unconscious emotions, and the sociocultural environment. As early as 1979, Sylvesin (1979) summarized experience with this model and concluded, "It sounds like a logical framework. New knowledge produces a change in attitude, which produces a change in behavior. The only problem is it does not work."

This has been demonstrated by several KAP (knowledge, attitudes, and practices) surveys carried out among adolescents (Dowsett and Aggleton, 1999). Various evaluation studies have

found that the effects of these awareness-raising campaigns of the epidemic's first decade were limited. They were quite effective in increasing adolescents' knowledge, but only some studies reported improved attitudes toward preventive behaviors (Schaalma et al., 1996).

The second-generation interventions were based on the insight that knowledge about issues related to HIV/AIDS prevention may be necessary, but it is not sufficient to bring about behavior change. It had become clear that education aimed at HIV/AIDS risk reduction should also address clarification of values and attitudes, social influences, and general decision-making and communication skills (Fisher and Fisher, 1992; Kirby et al., 1991). These interventions were based on approaches demonstrated to be effective in sexuality education curricula. This generation of interventions usually includes a variety of games, exercises, videotapes, and other materials encouraging young people's active participation in the curriculum. Some evaluations of this generation of interventions revealed favorable effects on knowledge of, attitudes about, and intentions to reduce HIV risk, and in some cases even on the number of sex partners and condom use.

Around 1990, several research groups started projects aimed at systematic development of a third generation of AIDS risk-reduction interventions. Although at first glance these interventions are quite similar to the second-generation interventions, they are developed on the basis of more advanced empirical research and theoretical insights, and students, adolescents, teachers, and gatekeepers participate in intervention development. Several evaluations revealed these programs are most effective in changing young people's sexual behavior—motivating them to delay sexual initiation and/or practice safer sex (Walter and Vaughan et al., 1992; Schaalma et al., 1996).

To improve HIV interventions and to achieve the intended goal, research suggests theoretical frameworks that have proven to be effective in various fields of health promotion, including sex education and HIV education. The theories and models underlying these frameworks are usually derived from research in English-language countries or in Northern and Western Europe (UNAIDS, 1997a) and have not yet been sufficiently challenged by research in African countries. Therefore, while drawing lessons, one must carefully check their usefulness and relevance.

Toward theory-oriented and data-based interventions. The sustainable behavior change process is now thought to be an interactive process among individuals, families, and the communities within which they live. It requires change in individual involvement, community standards, and sociocultural values, as well as availability of "youth-friendly" health services and creation of a supportive legal and ethical environment. Moreover, for individuals to change their sexual behavior and protect themselves against HIV infection, they must know effective prevention methods and have the skills to adopt them. The second element—the skills that allow for behavior change—includes several aspects.

According to the World Health Organization (WHO), *psychosocial competence* is a person's ability to deal effectively with the demands and challenges of everyday life, to maintain a state of mental well-being, and to demonstrate this in adaptive and positive behavior while interacting with others and his or her culture and environment.

Psychosocial competence has an important role to play in promoting good health in its broadest sense: physical, mental, and social well-being. In particular, where health problems are related to behavior, and where behavior is related to an inability to deal effectively with life's stresses and pressures, enhancing psychosocial competence could make an important contribution. This is especially important for health promotion at a time when behavior is increasingly implicated as the source of health problems.

The most direct interventions to promote psychosocial competence are those that enhance a person's coping resources and personal and social competencies. In school-based programs for young people, teaching Life Skills in a supportive learning environment can do this.

Many of the successful projects referred to on the previous page included the following elements (Schaalma et al., 1996; Paulussen et al., 1995; Stephen et al., 1995; McKenzie, 1997; UNAIDS, 1999b):

- use of empirical data (needs assessment among youth and teachers; pretests of program components; and prototype program evaluation);
- targeting personal risk perception and behavioral determinants (emphasis on Life Skills education and self-efficacy reinforcement; work to create and enhance positive social norms among peers);
- systematic use of social scientific theories about changing behavior by means of communication; and
- anticipating large-scale implementation (diagnosis of the school system; a liaison group—"linkage board"—bridging the gap between research and development and the school system).

Programs designed according to this procedure have been shown to be effective in changing young people's knowledge, risk perception, social cognition, self-confidence, and risky sexual behavior (Schaalma et al., 1996). The general theoretical framework has been Social Cognitive and Social Influence Theory. Program design was guided specifically by an emphasis on changing attitudes, fear arousal, decision-making, and skills training (Schaalma et al., 1994, 1996). The main educational strategies of the program were inquiry teaching, assignments, classroom discussion, peer model stories in print material, and videotaped role modeling.

The facts indicate that the theoretical constructs used in these interventions might provide useful frameworks for examining HIV risk-taking behavior in a variety of cultural and social milieus (MacNeil, 1996). Evaluation studies in Tanzania and South Africa indicate that theory-based programs using a social influence approach or social learning theory appear to have been the most successful in changing risk behavior (Kuhn et al., 1994; Klepp et al., 1997).

The purpose of this study is to compile lessons learned from Life Skills programs by reviewing evaluation reports, effective implementation strategies, and ongoing nonformal activities. For more information about the theoretical approaches used as the basis of the study, please see Annex 2, "Theoretical Framework for Analyzing Curricula."

2. Methodology and Limitations of the Study

2.1 Methodology and Materials

The focus of this review is on evaluation reports of Life Skills programs. However, due to the limited number of evaluation research studies of such programs conducted in sub-Saharan Africa, a theoretical analysis was also made of a sample of curricula implemented in schools in French-speaking Africa.

The materials described come from many sources. Georges Tiendrebéogo and Suzanne Meijer took advantage of country visits to collect several curricula in French-speaking countries (Benin, Togo, Central African Republic [CAR], Mali, Senegal). A request for information on evaluation reports on Life Skills programs was posted on community research@hivnet.ch, www.synergyaids.org/caba/archives/May2000-March2001/msg00262.php and on the UNAIDS local responses Website localresponses@unaids.org. Searches on the Internet did not produce significant results.

Debbie Gachuhi's report, "The Impact of HIV/AIDS on Education Systems in the Eastern and Southern Africa Region and the Response of Education Systems to HIV/AIDS: Life Skills Programs" (1999) was adapted to fit into this study. Tiendrebéogo and Meijer designed a grid of criteria for analyzing the documents (see Annex 1, Matrix for Analyzing Life Skills curricula; Annex 2, Theoretical Framework for Analyzing Curricula; and Annex 3, Matrix for Comparing Different Curricula). Gary Engelberg and Tiendrebéogo coordinated and edited the report and wrote the introduction describing the context and the background of the study.

To a large extent, the general theoretical framework for analyzing the selected curricula is based on different theories and models, including the Health Belief Model, the Theory of Reasoned Action, Social Cognitive Theory, and Social Influence Theory, among others. These allow a thorough understanding of behaviors and of criteria for identifying the determinants programs should target. However, understanding behavior is not the same as influencing it.

A second step in the study was to assess the desired learning outcomes against theoretical methods to change or reinforce attitudes, opinions, and behavior. Both broad and specific theories are useful when developing health education interventions; one aspect of intervention development is selecting theoretical ideas that may be useful for accomplishing program objectives. Intervention development includes translation of theoretical ideas into actual educational materials and activities. A number of theories, including those dealing with risk perception and "unrealistic optimism," attitude change, fear-arousing communication, and social comparison and confirmation, suggest a variety of educational methods and strategies that can be applied when developing programs. Other theories, such as the Adoption and Diffusion of Innovations Theory, also help in anticipating implementation of programs.

The themes and learning objectives included in UNAIDS/WHO/UNESCO's model (1994), "School Health Education to Prevent AIDS and STDs," were adapted and used as a reference for comparing the different curricula (see Annex 3). The main themes and objectives are:

- basic knowledge of HIV/AIDS/STIs;
- emotions and sexuality;
- relationships: girls and boys;
- responsible behavior: delaying sex;

- responsible behavior: protected sex; and
- care and support for people living with HIV/AIDS (PLWHA).

Relevant skills include self-awareness, decision-making, creative thinking, effective communication and assertiveness to resist pressure to use drugs or have sex, negotiation skills to ensure protected sex or to delay sex, coping with emotions and/or stress, interpersonal relationship skills, empathy, and practical skills for effective condom use.

2.2 Limitations of the Study

In response to its many requests for information using different mailing lists, telephone interviews, and a few country visits, the evaluation team received a good deal of encouragement and numerous expressions of interest in the study findings, but little in the way of evaluation documentation. This might be due to the difficulties of accessing the Internet in developing countries, but also to the lack of sound evaluation reports or because many programs are just getting off the ground. Although this study was intended to assess the processes involved in the development, adoption, implementation, and diffusion of programs, the lack of responses from other countries limited the scope of the study and prevented us from presenting what could be called an exhaustive, definitive inventory of current Life Skills program evaluation reports in Africa.

Given the importance of the issue, Africa Consultants International (ACI) hopes to pursue the discussion on research, adoption, implementation, large-scale diffusion, and evaluation of Life Skills programs. We would be grateful if you would contact us and, if possible, send a copy of any relevant documents to this address for analysis and inclusion in future inventory publications:

Africa Consultants International
BP 5270
Dakar Fann, Senegal

3. Findings of the Study

3.1 Types of HIV/AIDS Interventions Targeting Youth in Sub-Saharan Africa

While objectives vary from country to country and from program to program, the main goal of youth-oriented HIV/AIDS interventions is to inform youth about HIV/AIDS and help them to develop skills such as the ability to analyze situations and behavior and their possible consequences before making decisions, as well as skills to refuse or avoid risky behaviors.

Most programs are pilot efforts targeting secondary school students with the goal of scaling up to broaden geographic coverage and to reach primary schools as well. In most countries, NGO and community-based schools also provide HIV/AIDS education. However, NGO programs may have limited geographic coverage, and both evaluation and continuation of these programs are less frequent.

HIV/AIDS interventions targeting youth in sub-Saharan Africa are organized in various ways in different countries (Casey and Thorn, 1999).

HIV/AIDS education is part of the regular secondary school curriculum in most countries. The primary models can be grouped into three categories:

- HIV/AIDS as a topic integrated with another subject area, such as science (e.g., Lesotho and countries that have not yet developed policies for school-based HIV/AIDS education).
- HIV/AIDS as a topic integrated with health and family life education (HFLE) or population, environment, and family life education. Most countries, and especially French-speaking African countries (e.g., Mali, Central African Republic, Senegal, Benin, Togo), have integrated HIV/AIDS in a cross-curricular approach with a variety of subjects, such as mathematics, science, home economics, health education, etc.
- HIV/AIDS education as a specialized subject or a separate topic (e.g., some English-speaking countries in the southern part of the continent, such as Zimbabwe and Tanzania).

HIV/AIDS programs are an extracurricular activity or set of activities involving youth clubs, NGO micro-enterprise interventions, nonformal literature, etc., in many countries. Examples include programs in Namibia (e.g., Youth Health and Development Program of the Government of Namibia and UNICEF, 2001) and in other countries, such as SIDA Service in Senegal, Peace Corps volunteers' Life Skills programs in different countries, Soul City in South Africa, etc.

For more information on nonformal HIV/AIDS prevention literature, please see the companion volume to this study, *Survey of Nonformal Life Skills and HIV Prevention Literature Aimed at Young People in Africa*.

3.2 Synthesis of Available Reports on Life Skills Education in Eastern and Southern Africa

3.2.1 Problems in Defining Life Skills Education and Controversies over Contents

According to the Joint UN Program on HIV/AIDS (1999a), the goal of AIDS/sexually transmitted infection (STI) education is to promote behavior that prevents transmission of HIV/STIs and not merely to increase knowledge about AIDS. Life Skills are abilities to use adaptive and positive behavior that enables individuals to deal effectively with the demands and challenges of everyday life. A program on HIV/AIDS/STI prevention should increase knowledge, develop skills, promote positive and responsible attitudes, and provide motivational support.

Box 1. Excerpt from *Study of Secondary Schools in Durban Metro and Mtunzini Magisterial Districts* by Tulane University, the Population Council, and the University of Natal (2000)

Coverage and content of Life Skills education vary greatly between schools. If the broadest definition of a Life Skills program is used, i.e., that at least one topic concerning Life Skills is included in the curriculum, then this survey suggests that Life Skills are taught in 95 percent of the schools.

Only 18 percent of schools, however, offer a full Life Skills curriculum to their students covering the complete 11 topics.

A "Core Life Skills program" requires six topics to be taught independently or integrated into regular classes. These are self-esteem, understanding sexuality, preventing unwanted pregnancy, negotiation within relationships, preventing HIV, and prevention of STIs. With this definition, 22 percent of students are exposed to these six topics at some stage of their secondary education.

However, the concept of Life Skills education is still difficult to grasp in program documents and specifically in French-speaking countries, where the term "Life Skills" remains imprecise and even enigmatic to most actors (see Box 1, top right).

Sex education is still controversial in sub-Saharan Africa. On one hand, many adults view sex education as a threat, feeling that it will encourage promiscuity, promote early sexual practice, or encourage deterioration in moral values. On the other hand, some stakeholders, including youth leaders, argue that young people need to be able to make informed choices and to become sexually responsible. Over time and in some countries, school planners, community leaders, NGO leaders, and parents have moved positively from a deafening silence toward acceptance of integrating some kind of sex education in school settings. As a result, programs have been developed to increase knowledge and reinforce skills (ability to manage relationships, character building to help develop sexual self-control, etc.).

Box 2. Excerpt from the *Final Report of the UNESCO Regional Seminar on HIV/AIDS and Education within the School Systems for English-Speaking Countries in Eastern and Southern Africa* (UNESCO, 1995)

HIV/AIDS Education is aimed at enabling students to delay initiation of sexual intercourse and practice behaviors that can protect them from infection. Countries have faced some resistance from pressure groups to the introduction of AIDS Education. Cultural and community concerns in relation to condom use and the concept of safe sex have had to be taken into account in the development of curricula.

Obstacles encountered in the implementation include the belief that HIV/AIDS/STD education is sex education and, therefore, will encourage promiscuity among young people as well as sexual experimentation.

Young people learn and practice these generic Life Skills in active learning processes involving brainstorming, role-playing, games, debates, and small-group work. Through these and other innovative teaching techniques, children can acquire skills to deal with peer pressure, support one another, and learn how to manage and cope with a wide range of specific problems.

The United Nations International Children's Emergency Fund (UNICEF), United Nations Educational, Scientific and Cultural Organization (UNESCO), and World Health Organization (WHO) have developed models and manuals providing guidance to school planners and curriculum developers (see Annex 8 and Box 2, previous page). These manuals have been adopted and adapted with varying degrees of success. To date, Eastern and Southern Africa Region (ESAR) countries supported by UNICEF, the European Commission, or the Peace Corps have been able to develop promising Life Skills programs. In other parts of the continent, most programs are still based on population and family life education models with content related to STIs/HIV/AIDS added in.

The following section synthesizes some examples of Life Skills programs and activities in ESAR school systems.

3.2.2 Synthesis of Available Program Evaluation Reports

3.2.2.1 Development and Impact Evaluations of School-Based HIV/AIDS Education in Tanzania and Namibia

AIDS Education in Tanzania: Promoting Risk Reduction among Primary School Children (discussed in Klepp et al., 1997)

Intervention

Local health educators and investigators from the Institute for Nutrition Research, University of Oslo, and the Center for Educational Development in Health of Arusha developed an HIV/AIDS education program, called *Ngao* ("shield") in Swahili, to symbolize that young people can learn to protect themselves from HIV. The program used local languages and targets primary school students in two regions populated by different ethnic and cultural groups. In addition, materials were designed to allow teachers to modify the contents according to context. The theoretical framework for the program was guided by the theory of reasoned action and by social learning theory.

Specific objectives were to:

- provide students with thorough information about ways to protect themselves against AIDS;
- focus on the fact that it is safe to spend time with and care for PLWHA;
- foster restrictive attitudes toward and subjective norms about early sexual activity; and
- reduce students' intentions to be sexually active in the near future as well as their actual sexual involvement.

Main products included a teacher's manual and a student's booklet, both written in Swahili. Because audiovisual equipment was not readily available, classroom activities that could be implemented with a minimum of resources were emphasized.

Specific activities were as follows:

- Teachers provided factual information about HIV transmission and AIDS, and trained local health workers often participated directly in classroom training or provided resources for the teachers.
- Students created their own posters depicting their perceptions of HIV risk factors.

- Students wrote and performed songs and poetry about the danger of AIDS and how children can protect themselves.

- Working in groups, students discussed how people are exposed to HIV and what they can do to reduce such risk. When appropriate, teachers were encouraged to have separate groups for boys and girls. Teachers were also encouraged to train and use peer leaders to help facilitate these group discussions.

- Students wrote and performed role-plays in which they argued publicly, trying to convince each other about aspects of risky behaviors or practicing refusal skills relating to sexual involvement. More elaborate plays were also created and performed in which students wore their traditional clothes instead of school uniforms and portrayed how AIDS was perceived in their community.

- Students performed the plays, role-plays, poetry, and songs outdoors in front of younger schoolmates.

Other activities were designed to increase communication with parents and other community members about AIDS, including interviews with parents, other family members, and friends as well as discussions at school at which community elders, religious leaders, and parents were invited to talk about how the community could take action against AIDS. Finally, each student received a T-shirt with the *Ngao* symbol to increase the program's visibility in the community.

Evaluation (baseline and follow-up measures)

The purpose of the study by Klepp et al. (1997) was to measure the effects of the *Ngao* program in reducing children's risk of HIV infection and improving their tolerance of and caring for PLWHA. The study questionnaire was adapted from the WHO survey instrument for adolescents and translated into Swahili. Demographic data were collected, and exposure to AIDS information and communication about AIDS was assessed. The questionnaire also addressed attitudes towards PLWHA and having sex, beliefs about consequences of having sex and the opinions of others, and corresponding items addressing motivation to comply with these opinions. Behavioral intentions to engage in sexual intercourse were also measured, and, finally, students were asked if they had ever had sex.

Results

At baseline, participating boys reported having been exposed to AIDS information more frequently than did girls, and boys also reported more favorable attitudes toward PLWHA. Furthermore, boys more often reported having been sexually active in the past than did girls, and they also expressed more favorable attitudes toward engaging in sexual intercourse and stronger intention to engage in sexual intercourse in the near future.

Twelve months after the intervention, students from the intervention schools reported:

- Discussing HIV/AIDS more frequently than did students from the comparison schools. They demonstrated a significant increase in their AIDS-related knowledge level and reported more positive attitudes toward PLWHA.

- Attitudes toward engaging in sexual intercourse had become significantly more restrictive.

The study shows:

- Educating sixth graders can foster increased exposure to and communication of information about HIV/AIDS. The program seems to have been successful in making

AIDS a topic of discussion outside as well as within the school setting, as pupils reported discussing AIDS with their parents, other relatives, and religious leaders more frequently after the intervention.

- There was a substantial increase in pupils' knowledge of AIDS, more positive attitudes toward PLWHA, and decreased levels of fear and stigma attached to HIV/AIDS throughout the communities.
- There were more restrictive subjective norms and a reduction in students' intentions to be sexually active in the near future.
- It is feasible to train local teachers and health workers to implement a school-based HIV/AIDS program.
- It is feasible to implement culturally specific HIV/AIDS education with children in primary schools.

Recommendations

- Future studies should be designed to assess a broader repertoire of sexual behaviors, including condom use, and to follow up with students after primary school graduation (especially examining the incidence of HIV/STIs and unwanted pregnancies).
- Develop programs targeting the large proportion of out-of-school adolescents.

Since the trial, the Ministry of Education has revised and pilot-tested the program for use in secondary schools throughout Tanzania.

Namibia Life Skills Program (Discussed in Stanton et al., 1998)

Intervention

Namibia's Ministry of Education and Culture, with UNICEF assistance, focused initially on Life Skills training for 15- to 18-year-olds for school youth after and outside school. "My Future Is My Choice" (MFMC), an HIV risk-reduction intervention program (Youth Health and Development Program, Government of Namibia and UNICEF, 1999), largely drew on the experiences in Zimbabwe and Malawi. It used a systematic planning process, directed attention on outputs of health education programs rather than inputs right at the beginning, and gathered appropriate information about determinants of risk behaviors among adolescents and environmental conditions. UNICEF Namibia first sponsored a randomized longitudinal study on the likelihood of effects of the pilot MFMC intervention. Following the study, the program was disseminated on a large scale, and, by December 1998, more than 21,000 young people had passed through an intensive peer education effort. It appears that the program has indeed reduced adolescent sexually risky behavior.

The curriculum for youth was based on the "Focus on Kids" curriculum, which has been found to increase rates of protected sexual intercourse among African-American youth aged 9–15 in the United States. The curriculum, based on social and cognitive theory, focused on basic facts about reproductive biology and HIV/AIDS; other risky behaviors, including alcohol consumption and violence within relationships; communication skills; and a framework for decision-making. Each of the 10–14 sessions contained a variety of narratives, games, facts, and exercises as well as time for questions and discussion. Each session took about two hours, and the program could be implemented in five weeks (two to three sessions a week), in three weeks, or over three weekends.

The goal of the program was to prevent young people from becoming infected with HIV and dying from AIDS. Specifically, "My Future Is My Choice" aimed to:

- provide young people with the skills to delay sexual intercourse;
- provide young people with facts about health, pregnancy, STIs, and HIV/AIDS;
- improve communication between girls and boys, between friends, and between young people, their parents, and their community;
- improve the decision-making skills of young people;
- provide young people with the skills they need to make informed decisions about their sexual health; and
- provide young people with the information and skills required to face peer pressure to use nonprescription drugs and alcohol.

The sessions were divided into different activities, including games to teach skills in a fun way or to make people relax; activities to practice what participants had learned and/or do small-group work; and a question and discussion time to help participants think critically.

Sessions were co-facilitated during after-school hours by a volunteer teacher and an out-of-school youth (either a student teacher or a youth who had completed grade 12) in a mixed-sex classroom of 15–20 students. Selection and training of facilitators was overseen by the principals, with the assistance of the central Government of Namibia, UNICEF, and University of Maryland partners. Facilitator training lasted 40 hours and focused on practical skills needed in the curriculum as well as team-building exercises, logistics, etc.

Evaluation

The evaluation was published in Stanton et al., 1998.

The main anticipated outcomes were abstinence in the past six months and/or condom use at the last episode of sex. Secondary outcomes were partner knowledge, reduction in the number of partners, reduction in use of mood-altering drugs, and increased acknowledgement of partners' rights. Risk/protective intentions were assessed in the pre- and post-intervention periods, as were feelings of competence regarding various aspects of condom use.

Results and Recommendations

There was evidence that MFMC was able to reduce behaviors that increase the risk of HIV among adolescents age 15–18 who were sexually inexperienced at the time of enrollment in the intervention. In addition, two other HIV-related behaviors (lack of partner knowledge and alcohol use) were also affected positively. Some intentions regarding preventive behavior were altered, as were feelings of competency regarding various aspects of condom use and condom negotiation. No risky behaviors increased among intervention youth in the post-intervention period.

There was evidence that Western models can be successfully adapted and implemented in Africa. To date, however, such interventions are not available in Africa. It would appear helpful to be able to modify successful interventions and use them in other cultural settings where HIV is a major problem.

The evaluation showed differential effects of the intervention according to gender (e.g., the intervention appeared to have increased condom use among male virgins as they initiated sex;

by contrast, among females, it appeared to delay the onset of sexual activity). Accordingly, gender-specific (rather than generic) programs are recommended. Some consideration should be given to developing gender-specific interventions or intervention components.

The evaluation also showed that "safer sex" versus "abstinence only" interventions are effective for use with sexually inexperienced youths. It indicated that virgins who participated in the intervention were likely to remain sexually inexperienced one year later, and those who did initiate sex were more likely to use condoms. Certainly, these findings provide no evidence that sexual initiation is hastened among intervention participants.

As national implementation of MFMC proceeds, it will be important to try to establish biological markers to corroborate these self-reports of intervention effects. Monitoring implementation will also be necessary to ensure that these youths are indeed given every opportunity to shape their own future.

Follow-up activities showed an increase in protective behaviors among school-going adolescents, suggesting the need for complementary actions such as peer education/support. UNICEF is currently supporting the Namibian Ministry of Education in designing new interventions to complement the MFMC strategy.

This effort not only filled a void in Namibia, but it also created a demand for similar training targeting youth age 10–14. The Namibian Catholic Bishops Conference joined the initiative to combat HIV/AIDS (UNICEF Namibia, 1999).

The Namibian Ministry of Education and Culture has made progress in incorporating an HIV prevention framework throughout the primary and secondary school curriculum. The curriculum sends very direct and clear messages with regard to both abstinence and condom use. The primary and secondary school syllabus reinforces HIV prevention at frequent intervals from 5th to 10th grade in the life sciences and population education curricula. Nearly all Namibian youth are in school until grade eight, so the school program reaches most youth.

However, it has been reported that some teachers are uncomfortable with AIDS materials and do not wish to teach AIDS prevention. Many are still lecturing instead of using participatory methods (Stanton, 1999). Furthermore, it has been suggested that many 15- to 18-year-olds, especially high-risk youth, feel disenfranchised by the formal school system, so they are unlikely to be responsive to risk-reduction messages presented in a school setting. Hence, mobile teams are needed to reach young people where they are.

Nonetheless, the program has been able to successfully reach almost 51,000 young people out of a total national population of about 1.5 million. There are now plans to start a similar program for children between age 10 and 14.

3.2.2.2 Life Skills Programs and Issues in Other Countries

South Africa Life Skills Program (discussed in Coombe, 2000)

In November 1995, the South African departments of Health and Education formed the National Coordinating Committee for Life Skills and HIV/AIDS, whose highest priority was to establish a Life Skills and HIV/AIDS education course in secondary schools (grades 8–12). The National Project Committee supervised the development of the Life Skills curriculum and guidelines for its implementation at national level. At the provincial level, each Department of Education was preparing its own implementation plans.

In 1996, an evaluation (Visser) found that an HIV/AIDS education program known as the First AIDS Kit improved knowledge but not behavioral intentions (see Box 3, page 36). In 1998, the

Planned Parenthood Association of South Africa (PPASA) and Community Agency for Social Enquiry (CASE) reviewed teacher preparation and curriculum implementation and, according to the Department of Health, identified the following problems:

- teachers needed further in-service training to deal with Life Skills;
- master trainers and teachers lost to the program needed to be replaced, and those working on the program needed to be retrained regularly; and
- more work needed to be done with officials at middle-management levels (area and district managers and principals) and with representatives of the governing bodies of schools.

In March 2000, a joint assessment of the Life Skills program in more than 250 secondary schools in KwaZulu-Natal Province was conducted. The main focus of this study, which was conducted by the University of Natal (Durban), the Population Council, and Tulane University, was the effectiveness of the Life Skills and HIV/AIDS Education Program in secondary schools. This program is intended to increase knowledge, develop skills, promote positive and responsible attitudes, and provide motivational support to adolescents (South Africa Department of Health and South Africa Department of Education, 2000). It promotes change in adolescents' behavior in ways that are intended to reduce risk of HIV transmission.

Another survey (Macintyre et al., 2000) was conducted among all secondary school principals in Durban Metro and Mtunzini Magisterial Districts in September 1999 to assess the coverage and content of existing Life Skills programmers.

Key findings from this survey include:

- While the Life Skills program is a "key strategy in the state's response to the epidemic, we know little about the programs' effectiveness, or the way in which Life Skills training combines with other resources in families or in communities to influence reproductive outcomes" (Tulane University, Population Council, and University of Natal, Durban, 2000).
- Coverage and content of Life Skills education varied greatly between schools:
  - While 95 percent offered at least one of the 11 Life Skills topics, only 18 percent offered a full Life Skills curriculum. The Core Life Skills Program (six topics) was offered to 22 percent of students at some point in the secondary school cycle. It was more likely to be taught in schools that required higher fees and other parent contributions and that had better materials and facilities in general.
  - Students in schools with a predominantly black student body were least likely to receive training.
  - Schools where principals judged students to be at high or moderate risk for pregnancy or infection were least likely to offer Life Skills topics. Principals' gender, age, and qualifications did not seem to determine if Life Skills topics were offered. The only characteristic of school principals associated with implementation of Life Skills was whether the principal himself or herself had an adolescent child. In general, principals felt it is *important* to teach Life Skills.
- Principals reported that 22 percent of teachers were trained to teach Life Skills issues. However, principals may have considered general teacher training in their assessment,

and it remains unclear how many teachers had actually received specific training on the Life Skills curriculum and teaching methods.

The survey also assessed the attitudes of the principals toward the issues covered in the Life Skills program and how they are related to implementation of Life Skills teaching. The key findings were:

- Fifty-two percent of the principals felt that pregnant students should be asked to leave the school, but 87 percent of principals approved of teenage girls returning to school after the birth of their child.
- Most principals (88 percent) felt that HIV-positive students should be allowed to stay in school.
- Fifty-seven percent of principals felt that condoms should be distributed in secondary schools.

In conclusion, teaching Life Skills was generally viewed as important, yet only a minority of schools in these two districts offered core Life Skills topics as a regular part of the curriculum. Whether or not Life Skills topics were taught in schools was not related to the principal's assessment of adolescents' risk of unintended pregnancy or HIV infection. However, incorporation of Life Skills within a curriculum was strongly associated with whether the school has access to financial and material resources.

There are currently about 21,300 primary schools with 8.4 million learners in South Africa. This implies a need to train 64,000 primary school educators and 21,000 lay counselors. At the secondary level, there are 4,966 secondary and 2,542 combined schools, with more than 4 million learners. Monitoring implementation of Life Skills activities on such a large scale has been difficult. Materials need updating and revision, more master teachers and counselors need to be trained, and models of peer-group support need to be explored.

Western Cape Province Department of Education

Western Cape Province Department of Education (WCED) is appointing three HIV/AIDS-dedicated staff: a manager, a coordinator, and a technical support staff member. Its work is focused very specifically on implementing the Life Skills program in secondary and primary schools: a business plan for HIV/AIDS–Life Skills education; workshops and intersectoral meetings; a situation analysis of Life Skills teaching at the secondary level; an audit of NGO Life Skills projects currently running in schools; and dissemination of UNAIDS documents to all schools. The WCED has established 20 school clinics; the full school clinic program will roll out during the next two years to all schools. Area medical, social, and psychological teams support clinics (Western Cape Education Department, 2000).

Gauteng Department of Education

The Gauteng Department of Education (GDE) has launched a Life Skills program. Its deputy director-general outlined the department's attempts to control the in-school violence on which the pandemic thrives. GDE has drafted a training module to help principals and other educators deal with sexual violence and harassment, and create appropriate guidelines for policy and practice in school. With support from the Department of Health, district officials are being trained to provide assistance to teachers on HIV/AIDS issues, the Life Skills curriculum, sexual and substance abuse, teaching learners to say "no" to drugs and violence, and developing greater assertiveness among young women. The Victim Empowerment Program focuses on informal settlements in the province's Vaal area to empower women who are particularly vulnerable to male abuse.

Zimbabwe Life Skills Program

In Zimbabwe, which has one of the highest AIDS prevalence rates on the continent, the Ministry of Education and Culture (MOEC) took the bold step of offering a school-based HIV/AIDS and Life Skills Education Program for schools back in 1992. The AIDS Action Program for Schools targets students and teachers in grades 4–7 in all primary schools and forms 1–6 in all secondary schools, and it is a separate subject on the timetable. AIDS education is compulsory in all primary and secondary schools and tertiary institutions, and HIV/AIDS information is integrated into relevant subjects. The AIDS Action Program for Schools has helped to bring the HIV/AIDS problem in Zimbabwe out into the open for discussion.

The goal of Zimbabwe's AIDS Action Program for Schools is to change attitudes and behavior among students to reduce the risk of HIV infection. The program aims to develop students' Life Skills, such as problem solving, informed decision-making, and avoiding risky behavior. Participatory methods and experiential learning processes are used to teach Life Skills.

Zimbabwe's AIDS Action Program for Schools has a number of important achievements to its credit. More than 6,000 schools are now teaching the prescribed curriculum, using high-quality materials that have been produced by MOEC and introduced into the schools. All national, regional, and district education officers have received training through the program, and more than 2,000 teachers have received in-service training not only in using specific AIDS education materials, but also in participatory Life Skills methods generally. At the tertiary level, more than 5,000 teacher trainees have begun similar training in teacher training colleges.

The AIDS Action Program for Schools has drawn on resources from within

Box 3. Evaluation of the First AIDS Kit, the AIDS and Lifestyle Education Program for Teenagers (Visser, 1996).

Target Group: Rural teenagers at 11 schools from different language groups in South Africa

Intervention Methodology: The First AIDS Kit is an AIDS and lifestyle education program for teenagers developed by the South African Department of National Health and Population Development. The program was based on the Theory of Reasoned Action, the Health Belief Model, and the self-efficacy approach. The kit consists of five modules covering adolescence, AIDS and STIs, relationships, life skills, and safe sex skills. The kit includes a video, a quiz to teach facts, and exercises in assertiveness, decision-making, negotiation, and choosing low-risk behaviors. Teachers were encouraged to select parts of the kit they considered appropriate to students' needs.

Evaluation Method: The program was evaluated using self-completed questionnaires before and one week after the program by 187 pupils in standards 6–9 in 11 schools, complemented by focus group discussions with students and interviews with the teachers. The questionnaire, which was adapted from one issued by WHO, consisted of questions to measure knowledge, attitudes toward people with AIDS, behavioral intention to engage in high-risk behavior, and perception of condom use. The intention had been to select schools from all language groups, but the sample had to be reduced by two schools that initiated their program before receiving the pretest. Therefore, the sample included the following language groups: Afrikaans (53, 28 percent), English (78, 42 percent), African (29, 16 percent), and unspecified (27, 14 percent). A control was not used because of the cost involved.

Impact Achieved: There was improvement ($p<0.005$) on all the knowledge scales except susceptibility and attitude toward people with AIDS ($p<0.005$). No significant improvements were found in behavioral intentions and perceptions of condom use. Students evaluated the program favorably and offered suggestions about how to improve it with regard to content, presenter, educational techniques, role of parents, and how to address moral issues. AIDS education should form part of long-term Life Skills and sex education, with a focus on behavioral change. There was no significant difference between the pre- and post-test results of students with an African home language, probably due to their small numbers in the sample.

the existing education system, and its managers have demonstrated a readiness to assess their problems and make corrections as needed—one of the program's great strengths. An effective research and monitoring component has been built up, and the data generated from this system have been used to make mid-course adjustments in the program. The program has the full support of the government and others, including churches.

Evaluation

An evaluation conducted in 1995 found that only one-third of the teachers had received any in-service training and that they were unfamiliar with experiential learning and participatory methods. Moreover, many teachers felt embarrassed about handling sensitive topics related to sex and HIV/AIDS.

The evaluation found that teachers considered single-sex sessions to be better for discussing puberty, sex, reproduction, or gender-specific relationship problems. At the same time, however, it was felt that mixed-sex sessions fostered respect and communication between girls and boys and should begin early. It seems that a certain amount of experimenting is necessary to reach an optimal balance, which can only be achieved through in-school experience.

Teachers considered role-plays with follow-up discussion very effective; for students, role-play, group discussions, drama, and discussion of anonymously written questions were most popular (Woelk et al., 1997).

The Zimbabwe program was the first of its kind in the East and Southern Africa region, and although there is a need for longer initial training and more days for refresher courses for teachers, the program has tried to incorporate some better practices, including strengthened teaching training, and has set a good precedent for others in the region.

Uganda Life Skills Program

Since the early 1990s, Uganda has had a comprehensive School Health Education Program (SHEP) that provided health information to pupils, although the program's intention also had been to change behavior. An evaluation of the program in 1994 revealed that the curriculum had indeed been successful in raising knowledge about health issues, but it reportedly had little impact on attitudes and values and no discernible impact on health practices.

It was pointed out that behavior and practice needed to be targeted more effectively. The study, therefore, recommended using experiential and participatory methods, and its advocacy led to the development of a Life Skills Program. The program was launched in 1994 with a national sensitization seminar for senior policymakers, opinion leaders, and NGO representatives. Baseline surveys were conducted in primary and secondary schools, followed by development of Life Skills reference manuals for teachers. Another reference manual for training out-of-school children and youth facilitators was developed as well. Primary teachers college faculty were trained in 1997–98.

In a one-year trial using the WHO/UNESCO in-school Life Skills Manual in Masaka District in Uganda, a curriculum and materials were developed (see Box 4, page 39). Some 100 primary and 32 secondary school teachers were trained. A control group of schools was included as well. One key feature of this program was a pre- and post-test of knowledge, attitudes, and practices related to STIs/HIV/AIDS and sexual behavior. This trial was part of an overall information, education, and communication (IEC) intervention in the district.

It was found that there was no significant difference between the control group and the intervention school for the following reasons:

- Teachers did not have the confidence to carry out experiential learning activities such as role-plays, so they reverted to more conventional teaching methods.
- Teachers avoided teaching sensitive topics such as condom use for fear of losing their jobs and because of their religious affiliations.
- Since Life Skills education was not an examinable subject and not on the curriculum, it was not perceived to be important.
- A significant portion of the curriculum was not covered. Teachers said they taught about 70 percent of the Life Skills lessons officially included on the timetable, while the pupils claimed they only taught about 30 percent of the lessons.

Lessons learned from this intervention point to the need for a more concerted effort to ensure that Life Skills programs are developed with an agreed-upon methodological approach, are strategically placed in the curriculum, and have the commitment of all players. The support and cooperation of inspectors and local authorities needs to be enlisted. Teachers need the *skills* and *confidence* to facilitate experiential learning activities in Life Skills lessons.

Currently, effective advocacy has created a supportive environment for Life Skills education, and plans are under way to develop a better-designed curriculum, sufficient and sustained training, and basic but essential teaching materials to bring Life Skills education effectively into primary and secondary schools. Life Skills will be infused in health/science as the carrier subject. The ministry is now in the process of developing a curriculum, designing training approaches, and preparing teaching materials to bring Life Skills education into schools. The initial focus of these efforts is primary schools.

Lesotho Life Skills Program

Lesotho has integrated some HIV/AIDS and STI information in such subjects as health and physical education in the primary school curriculum and in the biology curriculum in secondary schools, although the subject is not compulsory in all schools.

An assessment conducted by Chendi (1999) found that the Life Skills program was intended to equip youth with skills to enable them to deal effectively with the demands and challenges of everyday life. However, closer examination showed that the curriculum was heavily biased toward knowledge, with very little curriculum content or time during lessons to spend on the skills and attitudes needed for behavior development and/or change.

Moreover, head teachers had not received training on Life Skills, and many teachers said they lacked the confidence to handle such sensitive topics. In conclusion, while a certain amount of activity was taking place, coverage was unknown, and the methods were ineffective, with the exception of those implemented by a few NGOs.

Malawi Life Skills Program

In Malawi, where 15–25 percent of urban youth are infected with HIV, and girls are three to four times more likely to be infected than boys, the Ministry of Education implemented a Life Skills syllabus for Standard 4 children in primary schools in 1997. Regrettably, about 2 percent of children dropped out after Standard 1, and most pupils terminated their education and leave school after Standard 4, so those would remain unreached.

The syllabus attempted to equip learners with skills such as decision-making, problem-solving, effective communication, assertiveness, and conflict resolution, among others. However, due to the program's design, any significant behavioral change was unlikely, since findings indicated

lack of appropriate teaching methodologies for effectively inculcating safe behavior skills. Standard classroom modes of assessment were identified in the syllabus.

Chendi's 1998 assessment of the Malawi Life Skills Education Program revealed the urgent need to train teachers, to develop additional materials for use in all classes in primary and secondary school in all districts in the country, and, most importantly, to develop participatory learning practices in schools. To date, there is scant information on the impact of this Life Skills program on reducing the incidence and prevalence of STIs, unplanned pregnancies, and young people's ability to engage in risk-free behavior.

Botswana Life Skills Program

A 1998 Sentinel Survey conducted at antenatal clinics at nine sites in Botswana indicated that, out of 4,194 pregnant women tested over a 12-week period, 1,614 were HIV-positive. About 13 percent of these were less than 20 years old (Molobe and Salewski, 1999). This was a clear indication that young people, and especially women, were engaging in unsafe sex. Consequently, in 1998, the Ministry of Education developed a policy on HIV/AIDS education with the following guidelines:

- HIV/AIDS education must be integrated into the curriculum and should be made compulsory at all levels of education.
- It is the responsibility of all staff involved in education to participate in HIV/

Box 4. Evaluation of a Comprehensive School-Based AIDS Education Program in Rural Masaka

Target group: Rural schoolchildren in primary and secondary schools in Masaka District, Southwest Uganda.

Intervention Methodology: The program was an adapted version of WHO/UNESCO 1994 School Health Education to Prevent AIDS and STDA Resource Package for Curriculum Planners. Two teachers from each participating school attended a series of three training and evaluation workshops lasting a total of five days over 12 months. The teachers were expected to introduce the program in classroom and out-of-school activities over the 12-month period.

The program and subsequent evaluation was influenced by the Behavioral Change for Interventions (BCI) Model, which is closely related to the Theory of Reasoned Action and identifies the following four elements important for behavior change: knowledge acquisition, skills development, attitude development, and motivational support.

Evaluation Method: A total of 1,274 students from 20 intervention schools and 803 students from 11 control schools completed questionnaires in English at baseline, and their classes were followed up. The self-completed questionnaires measured the four elements of the BCI model. Students in the intervention schools completed questionnaires immediately before the program began (round 1), immediately after it ended (round 2, 10–12 months later), and again six months after that (round 3). Students in the top two years of the primary schools and the lower two years of the secondary schools were asked to complete questionnaires at baseline, and these classes were followed up in subsequent rounds. Logistical problems prevented the children in control schools from completing the questionnaire at round 1, but they did complete rounds 2 and 3. In addition, 93 students from five of the intervention schools participated in 12 focus group discussions.

Impact Achieved: Analysis of the questionnaires suggests that the program's overall effect was minimal and not statistically significant. Focus group data indicated that the program was incompletely implemented, and that key activities, such as condom use and role-play exercises, were covered only very superficially. The main reasons for this were a shortage of classroom time and teachers' fear of controversy and the unfamiliar. The findings highlighted the problems of locating AIDS education within a science curriculum and suggest that AIDS needs to be incorporated more fully into the national curriculum and placed within the life skills curriculum, with teachers receiving more training in participatory methods.

AIDS education, since the disease has social, economic, scientific, demographic, and moral implications.

- Schools, in cooperation with the local health authorities, should involve parent-teacher associations and the community in AIDS education. In addition, it is vital to forge links between the school and community on this issue.

The Ministry of Education infused Life Skills across the curriculum in secondary school subjects such as development studies, biology, religious education, integrated science, and social studies. It focused particularly on the guidance and counseling program to work on skill development. Nevertheless, AIDS education was usually presented in a one-time session (a "one-off lesson"), taught as biomedical facts to be learned for a test by teachers who are uncomfortable discussing the topic. Moreover, teachers lacked participatory methods to ensure effective learning, and there was little understanding of the important role Life Skills play in the development of young people (Molobe and Salewski, 1999).

Swaziland Life Skills Program

The Life Skills Program in Swaziland, still in the planning stages, has taken a different approach. It appears there is no clear-cut policy yet regarding the integration of HIV/AIDS into the curriculum. However, it is incorporated into several interventions, including care of orphans, activities for out-of-school youth, and school-based AIDS education. Despite these efforts, the impact of these interventions has been negligible.

It was reported a few years ago (Chendi, 1998) that in the School-Based HIV/AIDS and Population Education Program (SHAPE), implemented by CARE, HIV/AIDS was handled rather haphazardly and might or might not be taught, depending on the commitment of the head teacher and the ingenuity of the teacher who had been trained by SHAPE.

In a few schools, HIV/AIDS was taught as a separate lesson; in others, it was infused into the curriculum. In still others, it was taught only if the teachers had time. In sum, there was no clear policy yet regarding teaching about HIV/AIDS. Coverage was quite low. Intervention was sporadic and, because of the methodology used, generally ineffective.

3.2.2.3 Larger Surveys of HIV/AIDS Education Programs in Schools

Final Report of the UNESCO Regional Seminar on HIV/AIDS and Education within the School System for English-Speaking Countries in Eastern and Southern Africa (UNESCO, 1995)

National HIV/AIDS policies including HIV/AIDS education. Most countries, through their ministries of health, had made policy decisions in favor of school-based education initiatives by the mid-1990s. However, these policies varied widely depending on the political and bureaucratic commitment to action and the degree of collaboration between and among various sectors/organizations. A number of countries did not have HIV/AIDS education policies within their ministries of education.

Teacher training. In many countries, teacher training was a critical component in the school-based initiatives. Most countries had adopted a two-pronged strategy involving in-service courses for teachers already in schools and pre-service work for trainee teachers. However, the teacher training process was seen as too slow in some countries.

Collaboration between Ministries of Education/Health and NGOs. Countries would have liked to see greater cooperation between government ministries and NGOs in the schools. Some NGOs with religious affiliations, and the church generally, had fundamental differences of opinion

with Ministries of Education and Health over the perceived direction in which AIDS prevention efforts should move.

Most NGOs working with HIV/AIDS education got support from donor organizations; very few got it from the government. NGOs were involved in education and training through training of trainers, materials development and production, materials dissemination, research, counseling, care training, advocacy and political activism, networking, and prevention programs. Very few were satisfied with the AIDS education activities of their Ministries of Education.

The potential role of NGOs in enhancing the design, implementation, and effectiveness of HIV prevention was stressed, particularly within the school system, where there was a shortage of funds, the curriculum was overloaded, personnel were overextended, and many of the teachers were not trained adequately to implement HIV education. NGOs could help ministries in areas such as training of teachers, counseling, development and dissemination of materials, and referral services.

Lessons Learned from WHO/UNESCO Pilot Projects in School-Based AIDS Education

Early in the 1990s WHO and UNESCO had been collaborating in the establishment and evaluation of seven pilot projects for school-based AIDS education in Africa (Ethiopia, Mauritius, Sierra Leone, and Tanzania), Latin America, and the Pacific. Baldo (1992) reported that although the projects differed in their specific objectives, they all aimed to introduce AIDS education into school curricula. The following summarizes eight important lessons learned in four of the projects.

- AIDS education can be introduced in developing countries at both primary and secondary school levels with the support of parents.
- Initial assessment studies provide important background facts for advocacy on AIDS education. For example, focus group discussions and small-scale surveys in one country showed that the average age at first sexual intercourse was 14 for girls and 16 for boys.
- AIDS education in schools contributes to increasing awareness in the family and community.
- As a result of AIDS education, students increase their knowledge about HIV/STIs and their prevention, and they may express less discriminatory attitudes toward PLWHA.
- Prevention skills, although the most important component for the learner, are the most difficult to teach and rarely form the primary focus of curricula; they are too time-consuming, teachers are unwilling to discuss sexuality openly, and teachers lack experience in participatory methods.
- Information on condom value and use is accepted by education authorities as part of the curriculum.
- Prototypes of teaching and learning materials are useful to educational planners and trainers.
- Teacher training needs to include small-group discussions on personal attitudes toward sexuality.

Report of the European Commission (EC) Workshop on Life Skills Education

According to "Lessons for Life: HIV/AIDS and Life Skills Education in Schools" (Casey and Thorn, 1999), the product of a 1997 workshop that brought together representatives from

European Community-funded Life Skills and HIV/AIDS programs in the developing world, few HIV/AIDS education interventions had been evaluated by the late 1990s, and even fewer of those were evaluated adequately. Most short-term evaluations measured understanding only, not behaviors.

The workshop reached the following conclusions:

The most effective programs…

- promote acquisition of specific skills and development of social norms for healthy behavior. Programs that focus on sexual health are now considered to be better than narrow conceptions of disease prevention;
- take an interest in listening to the problems young people themselves identify, whether or not they are related to HIV infection (broader context). Young people's perspectives and needs, as well as their equal participation in learning, must be respected;
- emphasize clear behavioral values and norms. Programs that are narrowly focused on reducing sexual risk-taking behavior and a few specific behavioral goals are more likely to make a positive impact; and
- provide structural and environmental circumstances that are enabling and supportive of such behavioral change.

The least effective programs…

- promote abstinence only, rather than providing a range of options;
- focus on technological intervention (e.g., use of condoms) and dodge the more difficult issues of how to discourage early teenage sexual activity;
- tend to suggest or imply that students should make their own decisions rather than giving them clear guidance; and
- restrict discussion to adult concerns. This rarely reflects the reality in which young people live, and therefore such programs are lacking in interest for young people.

Finally, the following findings were emphasized:

- Program developers should plan and budget for monitoring and evaluation from the initial stages of Life Skills education programs onwards.
- Monitoring and evaluation are continuous processes that assess actual achievements against original goals, specific objectives, and ongoing expectations. (Note that *process evaluation* monitors expectations throughout programs; *impact evaluation* assesses the immediate and short-term effects of programs; and *outcome evaluation* reveals long-term effects and the bigger picture.)
- Program developers should own, plan, and budget for monitoring and evaluation from initial stages of programs.
- Monitoring and evaluation involve program developers using a variety of techniques to collect data.

Specifically, participants felt that the EC would work best primarily as a catalyst, enabler, and facilitator. In the light of the outcomes from the workshop, it was recommended that the EC should:

- Take a strategic view and influence policies at national level.
- Invest in needs assessments to determine future strategy in each developing-world context, especially where information and project interventions have taken place. The EC is in an ideal position to facilitate a more coherent and comprehensive strategy.
- Support the development of information interventions in light of the critical review that has taken place.
- Disseminate best practices in the establishment of Life Skills to key players. Pilot or microinterventions can be used to inform policy and develop macro or national initiatives.
- Work to define the context of Life Skills education, which will enhance international understanding of its value.
- Evaluate the grade level at which Life Skills education should be initiated. The workshop highlighted the vulnerability of younger girls, noting that while many 13-year-olds are still enrolled in primary school, they may already be sexually active.
- Help those involved in current EC-funded programs to see their work in the context of integrating Life Skills education into the national curriculum.
- Work with those involved in current EC-funded programs to decide on strategic means to achieve the goal set by each program.
- Help those involved in current EC-funded programs to carry out a number of stringent evaluations, including an assessment of cost-effectiveness.
- Encourage NGO participation in all levels of curriculum development and implementation, including policy and resource development, training, and school-based activities.

Early Intervention: HIV/AIDS Programs for School-Aged Youth (Seifert, 1997)

This study was sponsored by USAID/Africa Bureau in an effort to identify low-cost HIV/AIDS awareness programs in school and community-based settings that target school-age children, particularly adolescents and preadolescent youth. The primary objective was to determine the transferability of alternative and community-based programs to a larger scale through programs that use schools as an entry point. Two promising programs were selected: the Zambia Morehouse/YMCA HIV/AIDS Prevention Program and the Peace Corps Cameroon "Teach English, Prevent AIDS" program.

Research by the Advancing Basic Education and Literacy 2 (ABEL 2) project on the two programs confirms that HIV/AIDS education can be provided effectively for school-age youths in both in-school and out-of-school settings. The study of the out-of-school youth component of the Morehouse/YMCA project in Zambia showed the following:

- Involving the target audience in program planning and monitoring helps ensure interventions are appropriate and respond to the audience's needs.

- A varied, holistic approach to HIV/AIDS education that is based on extended, and sometimes personalized, contact with the target audience maximizes program impact and promotes behavior change.

- Young teens, even high-risk youths, can be effective advocates for HIV/AIDS prevention.

- A holistic approach that addresses issues related to HIV/AIDS directly and indirectly increases the likelihood of behavior change.

- A combination of same-sex and mixed-group sessions provides a comfortable forum for young teens. Same-sex sessions allow teens to discuss sensitive issues related to HIV/AIDS, while mixed-group sessions provide teens with opportunities to practice negotiation skills during real-life simulations.

- Positive and close community relations support program maintenance and sustainability.

- Open communication channels among all sectors of the program facilitate feedback and help to monitor process.

- Regular and effective monitoring and evaluation are needed for HIV/AIDS youth prevention projects to measure progress and attribute actions to the observed results.

The study of the "Teach English, Prevent AIDS" program in Cameroon showed:

- With careful planning, HIV/AIDS prevention concepts can be integrated into existing secondary school curricula.

- Integration of HIV/AIDS prevention into an established school curriculum can help to institutionalize AIDS instruction and ensure program sustainability.

- High-level support for HIV/AIDS prevention programs demonstrates commitment and helps to assure that sustainable broad-based interventions are carried out in a consistent fashion.

Research on both programs supports the following conclusions:

- Thorough preliminary research helps to ensure that the program reflects the target audience.

- Programs that build youths' self-respect instill self-confidence, which helps them to consider various life options and to challenge accepted, risky behaviors that often lead to HIV/AIDS.

- Collaboration across sectors and organizations increases the potential for synergistic effects and helps to reduce duplication of efforts.

The research also pointed out that the majority of the youth programs identified in this research targeted older youths, when they were already sexually active or were approaching the onset of sexual activity. Although this important group must be reached, the target audience should be expanded and reached at younger ages. Children age 5 to 12 have been referred to as the "window of hope" when speaking of HIV/AIDS prevention. They are, for the most part, HIV-free and at a point where attitudes and behaviors are being formed, so they are more malleable.

Communicating with Adolescents on HIV/AIDS in East and Southern Africa

Analysis of the curricula in Malawi and Kenya (Nduati and Kiai, 1996), revealed several factors affecting programs:

- Social learning theory was not adopted as a foundation for program development, nor were social learning and social influence theory included in developing the curricula.
- The curricula tackled nonsexual risky behavior in a fairly adequate and consistent manner and addressed relevant issues such as caring for PLWHA. However, sexual risk taking and drug use were inadequately discussed.
- All curricula encouraged use of active methods of learning; however, the vast majority of schoolteachers lived in remote areas with minimal access to information or even supervision. As a result, a well-written curriculum often remained unimplemented due to lack of skills or professional support for the teachers. In addition, parents often lacked the resources to buy the student manuals.
- Curricula emphasized the need to practice abstinence but, because there was a reluctance to talk about or even say the word sex, there was no discussion of protected versus unprotected intercourse.
- Because of political and religious pressure, condom use skills and safer sex negotiating skills were often omitted from the curricula or were seldom taught.
- Curricula were not tailored to be developmentally appropriate and culturally relevant.
- Curricula involved peers at varying levels.
- Curricula had been planned in such a manner that learners needed to finish school to be well informed.
- Little time was allocated to the subject (at best three to four hours per year). It is difficult to expect young people to make meaningful changes in their lives after just four hours of learning in a year.
- Training plans were constrained by finances.

3.3 Theoretical Analysis of Selected HIV/AIDS Education Curricula in French-Speaking Countries

3.3.1 Characteristics of Three Types of Disseminated STIs/HIV/AIDS Curricula

Table 1 (page 47) provides an overview of the curriculum features covered in this study. All curricula attempt to emphasize active forms of learning rather than simple methods; however, they differ in content and design. Family life education curricula, the first type available in sub-Saharan Africa, have been criticized on ideological grounds by religious leaders. These leaders claim that such curricula are meant to control African population growth by focusing on population issues and contraception, with HIV/AIDS only a minor theme. The second type of curricula focuses on HIV/AIDS prevention and care and support to PLWHA and, to some extent, on norms and values regarding sexual behaviors. Teaching techniques are the primary cause for concern here. The third curriculum type, the Peace Corps approach, is seen as a promising one as it addresses both HIV/AIDS issues and general life-saving skills, which can be used in real-life situations. In addition, it keeps the use of text formats to a minimum.

Sections 3.3.2–3.3.4 describe and analyze a sample of curricula that have been implemented in sub-Saharan Africa but not yet evaluated.

3.3.2 HIV/AIDS as an Integrated Topic of Family Life Education

> *"They are always telling us we should plan our families, but no one will tell us how."*
> A 16-year-old single mother in Nairobi (Hawkins and Meshesha, 1994)

The objectives of population and family life education as promoted in southern African countries have been primarily to prevent adolescent childbearing by stressing premarital abstinence, encouraging youth to delay marriage, and promoting family planning within marriage (Hawkins and Meshesha, 1994). However, most population and family life education is taught only at the secondary school level. By this time attitudes about sex roles and gender relations have been formed, the majority of young people have left school, and many are married or are otherwise sexually active.

UNESCO defines "population education" as "an educational program that provides for the study of the population situation in the family, community, nation, and world, with the purpose of developing the student's rational and responsible attitudes toward that situation." "Family life education" refers to "an educational process designed to assist young people in their physical, social, emotional, and moral development as they prepare for adulthood, marriage, parenthood, and aging, as well as their social relationships in the social-cultural context of family and society" (Sherris, 1982).

In-school population education programs funded by the United Nations Fund for Population Activities (UNFPA), UNESCO, and the World Bank, as well as bilateral donors, usually have sought to explain the relationship between population growth and development and to promote small family norms (Sherris, 1982). Population topics are often incorporated into social studies, geography, home economics, science, or mathematics courses. Although population education is sometimes viewed as a precursor to sex education, in reality most of these programs omit information on contraception, sexuality, and gender relations, on the grounds that such information is too sensitive to impart to the young and the unmarried.

Family life education is usually integrated into geography, biology, home economics, and religious or moral studies curricula. Though family life education programs vary greatly in

content, for the most part they emphasize conservative values and conventional family norms and ignore sexuality to avoid political or religious opposition. Family life education programs that do include sexuality generally provide basic information on the biology of reproduction but exclude discussion of sexual feelings, identity, attitudes, behaviors, or gender roles. Most teachers are untrained in counseling and interpersonal skills, so they are ill equipped to deal with young people's concerns and questions relating to sexuality and gender relations.

Some recent programs have included HIV/AIDS and STIs in their curricula. Overall, population and family life education that includes STIs/HIV/AIDS components is believed to provide students with information on:

- sexuality: adolescence, biological stages of development, etc.;
- relationships: definition, timing, and purpose of relationships, boy/girl friendships, identification of behavior, imitation, habits and character, and external factors and influences;
- HIV/AIDS/STIs: definition, progression, transmission, clinical signs and symptoms of AIDS and common STIs, HIV/AIDS spread;
- risky behavior, at-risk groups, behavior options, and selection; and
- risk-reduction means: abstinence and condoms.

Table 1. Characteristics of Three Types of Disseminated STIs/HIV/AIDS Curricula

	Family Life Education Manuals (CAR, Mali)	HIV/AIDS Manuals (Togo, Benin)	Peace Corps Manual (Malawi, West Africa)
Products	Teacher manual Videos, posters	Teacher manual Videos, brochures, posters	Training manual with peer educator/teacher and community leader components; includes training techniques Videos
Target group	Secondary school and, in some countries, primary schools	Secondary schools and primary schools	Out-of-school adolescents, primary and secondary school students
Content	Population issues STIs/HIV/AIDS: abstinence, condoms	Relationships, norms, and values; antidiscrimination toward PLWHA	STIs/HIV/AIDS: knowledge, response to STIs/HIV/AIDS Condom use Substance abuse Skills training
Learning objectives	Knowledge, norms, and values	Knowledge, norms, and values	Knowledge, norms, and values; communication skills; decision-making; thinking skills; relationship skills; emotion management skills
Learning activities	Lectures, reading articles or brochures, group discussion, demonstration	Lectures; reading articles, textbooks, or brochures; group discussion; demonstration; role-play; optional assignments	Group discussion, demonstration, games, role-play, assignments, interviews,
Cost	Manual: UNFPA Brochures: National programs	Manual: UNFPA Brochures: EC and National programs	Manual: Peace Corps, UNICEF Video

3.3.2.1 Two Family Life Education Curricula: Integrating HIV/AIDS Education (Mali and the Central African Republic [CAR])

These two curricula, developed with the support of UNFPA country offices, do not differ in format from one another: they both develop population education topics more than STI/AIDS contents (three to four lessons on STIs/HIV/AIDS per year).

STIs/HIV/AIDS contents include:

- STIs (e.g., in the CAR: symptoms of gonorrhea, syphilis, mycosis);
- HIV/AIDS (virus, symptoms, etc.);
- prevention and responsible sexual behavior;
- what to do in case of STIs;
- AIDS' impact on households and health systems; and
- condoms (reasons for inconsistent condom use, attitudes toward these values, arguments for condom use).

Table 2. Analysis of STIs/AIDS Contents in the Family Life Education Program in Central African Republic (Ministère de l'Education Nationale, FNUP/UNESCO, 1996b)

Themes adapted from UNAIDS/ WHO/UNESCO model	Information and facts	Personal risk perception	Social norms	Communication skills	Decision-making skills	Negotiation skills	Assertiveness and empathy	Practical skills	Adaptation to actual sexual behavior
Basic Knowledge: STIs	+	0	0	0	0	0	0	x	+
Basic Knowledge: HIV/AIDS	+	+/-	+	0	0	0	0	x	+
Emotions and Sexuality	+/-	+/-	0	0	0	0	0	x	0
Relationship of Girls and Boys	+/-	+/-	+/-	0	0	0	0	x	+/-
Responsible Behavior: Delaying sex	+	+	+	0	0	0	0	x	0
Responsible Behavior: Consistent condom use	+	+	+	0	0	0	0	x	+/-
Pregnancy Prevention	+	+	+	0	0	0	+/-	x	+
Care and Support to PLWHA	0	0	0	0	0	0	0	n/a	n/a

+: Largely discussed

+/-: Discussed with limitations

x: No differentiation by age/gender

0: Not discussed

n/a: Not applicable

See Annex 4 for a full description of the Teacher's Manual.

Primary teaching techniques are lectures, with more detail included as the level increases; brainstorming; and, to a lesser extent, group work.

With regard to our theoretical framework, what can we say about these population and family life education curricula?

HIV/AIDS/STI Knowledge

One of the main interests of these curricula is transferring knowledge about population control and STIs/HIV/AIDS. To a large extent, these curricula consist of information about the female and male genital and sexual tracts, consequences of unwanted pregnancies, and abortions and family planning.

The curricula also include two to five sessions on STIs and HIV/AIDS per year. Subjects include definition of STIs/HIV/AIDS, the immune system, symptoms of STIs and AIDS, methods of STI/HIV prevention and transmission, whether one can recognize people with HIV or AIDS, and, to a lesser extent, information on STI/AIDS resource centers. Details vary according to development stage or class attended.

Recommended teaching techniques include brainstorming and to a lesser extent classroom or group discussion and role-plays. In general, the source of information is the teacher, and, sometimes, NGOs or health professionals who might be invited. Generally, the content may attract the learner, and we believe the language used by trained teachers may match students' language and development stage, so it is easy to understand.

Issues arise involving varying teaching techniques among countries. As far as the transfer of knowledge is concerned, two issues are of major importance: information processing, and source of information.

Information is more persuasive when students are stimulated to engage in an active elaboration of the information provided—active learning. This implies students are stimulated to "do" something with the information provided; they should not be passive learners. With regard to learning theories, teaching techniques are more effective if they include questions that prompt students to think about the information, and short assignments or exercises, e.g., quizzes or discussion of assignments.

Attitudes

The curricula also provide normative health messages and recommendations. Teachers or NGOs convey "do and don't" messages, such as "students *should not* have sex" or "students *should* use condoms if they have sex." Preventive messages recommended by the curricula include the following:

A: *Abstinence*—delaying sexual activity until late teens. Clearly, the most effective strategy for preventing sexual transmission of HIV is abstinence from sexual activity. In addition, this strategy is culturally sensitive; yet, its applicability is limited to students who are not sexually active. More practical measures should be attempted among sexually active students.

B: *Being faithful to a known seronegative sexual partner*. This strategy is complicated for adolescents because most of them do not know their HIV status. An adolescent cannot assume his or her partner is seronegative unless he or she is certain the partner was previously virginal and has had no exposure to the virus otherwise, and/or the partner has taken an HIV diagnostic test.

C: *Consistent condom use*. Currently, the only barrier method that has practical usefulness in protecting against STIs and HIV is the male condom, if used properly. However, it has major

Table 3. Analysis of STIs/AIDS Contents in the Family Life Education Program in Mali (Ministère de l'Education Nationale, FNUP/UNESCO, 1996a)

Themes adapted from UNAIDS/ WHO/UNESCO model	Information and facts	Personal risk perception	Social norms	Communi-cation skills	Decision-making skills	Negotia-tion skills	Assertive-ness and Empathy	Prac-tical skills (condom use)	Adaptation to actual sexual behavior
Basic Knowledge: STIs	+	+/-	+	0	0	0	0	x	+/-
Basic Knowledge: HIV/AIDS	+	+/-	+	0	0	0	0	x	+/-
Emotions and Sexuality	0	0	0	0	0	0	0	n/a	0
Relationship of Girls and Boys	+/-	0	+/-	0	0	0	0	x	0
Responsible Behavior: Delaying sex	+	+	+	0	0	0	0	n/a	+/-
Responsible Behavior: Consistent condom use	+	+	+	0	0	0	0	x	0
Pregnancy Prevention	+	+	+	0	0	0	0	x	0
Care and Support to PLWHA	0	0	0	0	0	0	0	n/a	n/a

+: Largely discussed

+/-: Discussed with limitations

x: No differentiation by age/gender

0: Not discussed

n/a: Not applicable

See Annex 5 for a full description of the Teacher's Manual.

disadvantages: unless a girl is empowered to control sexual relationships, its use depends on her partner; it reduces sensitivity; it may elicit religious disapproval; distribution is problematic; and it is too expensive for some adolescents.

D: *Decreasing the efficacy of sexual transmission through early STI diagnosis and treatment*. However strong the logic, many STIs are asymptomatic, especially in girls. Unfortunately, many adolescents with such an infection will not suspect the fact and therefore will not go to a health care provider for diagnosis. But it is certainly helpful when young people with STIs do seek diagnosis and treatment; because of sexual practices that lead to adolescents' contracting an STI, they are, by definition, at high risk for HIV infection.

Overall, such a mix of recommendations can be counterproductive. With regard to attitude change, Social Judgment Theory (Sherif & Hovland, 1961; Bartholomew et al., 2001) suggests that people's existing attitudes distort their perception of the health message. Moderate message discrepancy may cause the greatest attitude change; extreme levels of discrepancy might even result in boomerang change, reinforcing the undesirable behavior. This implies that the discrepancy between AIDS preventive recommendations and adolescents' current attitudes/ actual sexual behavior should not be too large. Unfortunately, various studies show that the discrepancy between young people's attitudes toward sex, safe(r) sex, and health messages

promoting abstinence and delay is quite large at present; consequently, the effectiveness of the messages is reduced.

Theories of economic decision-making (Bell, 1982; Loomes and Sudgen, 1982; Bartholomew et al., 2001) suggest that choices among behavioral options are determined by the anticipated regret associated with each of these options. This suggests that attitudes about abstinence or safe sex may change when potential affective responses to abstinence and safe and unsafe sex are initiated or aroused. This could be accomplished by enhancing the link between unsafe sex and negative affective reactions, such as regret and worry, and the link between safe sex and positive affective reactions, such as relief. People behave in a certain way because this behavior is rewarding for them. Health education should not take away people's rewards, but should offer other or equivalent rewards for other behavior (Bandura, 1990). Arguments to motivate people to change their behaviors have to offer short-term rewards to be effective, because prevention of some future disease is not sufficient motivation for most audiences, especially young ones.

Linking the risk of HIV and STIs to the often more immediate risk and fear of pregnancy may provide an added motivation to use condoms. This approach, however, may backfire in areas where resistance to condom use stems from a belief that condoms are promoted to control African population growth. An appropriate alternative in this context might be to emphasize that the risks of unprotected sex—teenage pregnancy, health problems associated with early pregnancy, and HIV/STIs—can be avoided by postponing sexual activity. This approach would likely be more culturally acceptable than a narrow emphasis on condom use (Shapink et al., 1997).

Overall, these curricula do not include exercises on personal risk perception, group norms, and assertiveness; instead they focus on normative appeals to refrain from sex or to use condoms. Furthermore, there is no exercise aimed at reinforcing self-efficacy or developing skills. As such, we are far from the Life Skills model.

3.3.3 HIV/AIDS Education Presented as a Separate Topic (Togo and Benin)

Compared to family life education curricula, these curricula largely focus on STI/HIV/AIDS issues. A particular strength of these programs is the involvement of PLWHA. However, while an attempt has been made to address behaviors in the lesson objectives, the teaching methods and techniques still rely on lectures, site visits, group work, and testimonies by PLWHA or presentations by resource persons.

In Togo, where schools are already involved in family life education, the objectives included in the UNESCO/WHO framework for school-based HIV/AIDS education have been adapted to fit in. The curriculum has the advantage of addressing the needs of PLWHA. However, the curriculum failed to adopt the UNAIDS/UNESCO/WHO-recommended teaching techniques.

In Benin, the curriculum also has the advantage of addressing the needs of PLWHA, but it relies heavily on texts and lectures.

With regard to our framework, what can we say about these curricula?

Knowledge and Attitudes

The above analysis of the transfer of knowledge and influencing attitudes also applies here.

Personal Risk Perception

The curricula include some strong appeals based on fear. Some of these fear-based appeals are presented either through texts that relate the experiences of PLWHA or through the issue

Table 4. Analysis of the Second HIV/AIDS Curriculum in Togo (Ministère de la Santé et al.)

Themes adapted from UNAIDS/ WHO/ UNESCO model	Information and facts	Personal risk perception	Social norms	Communication skills	Decision-making skills	Negotiation skills	Assertiveness and empathy	Practical skills	Adaptation to actual sexual behavior
Basic Knowledge: STIs	+	+	+	0	0	0	+	x	+
Basic Knowledge: HIV/AIDS	+	+	+	0	0	0	+	x	+
Emotions and Sexuality	0	0	0	0	0	0	0	n/a	n/a
Relationship of Girls and Boys	+/-	+/-	+/-	0	0	0	+/-	n/a	n/a
Responsible Behavior: Delaying sex	+	+	+	0	0	0	+	n/a	+
Responsible Behavior: Consistent condom use	+	+	+	0	0	0	+	+/-	+
Pregnancy Prevention	0	0	+	0	0	0	0	0	n/a
Care and Support to PLWHA	+	+	+	0	0	0	+/-	+/-	n/a

+: Largely discussed

+/-: Discussed with limitations

x: No differentiation by age/gender

0: Not discussed

n/a: Not applicable

See Annex 6 for a full description of the Teacher's Manual.

of children affected by AIDS. The most powerful material is a brochure developed with the support of the EC AIDS Task Force and circulating in Togo, Senegal, Mali, and Benin. This brochure presents two personal letters: in the first, a boy writes about a grandmother who is left with four grandchildren because of AIDS. In the second, a boy writes about members of his football team who died of AIDS.

Other vehicles include posters and photographs of people living with AIDS and brainstorming about biological and behavioral determinants of unwanted pregnancy, the impact of family size and multiple pregnancies on mothers' health, or family consequences of abortions.

As stated by Schaalma and Meijer (1998), role model stories are generally an excellent way to personalize risk information, assuming adolescents can identify with these models. However, although these letters and other texts are a useful way of personalizing risk information, the quality of the role models can be questioned.

Social Norms and Self-Efficacy

The curricula address social norms in terms of what peers or significant people think or do in relation to having sex, delaying sex, or condom use and, specifically, attitudes toward PLWHA.

There is a strong focus on building positive values. Techniques range from bringing in PLWHA for personal testimonies to discussions based on texts.

Social Comparison Theory assumes that people tend to conform to the attitudes and behavior of others similar to themselves, partly because those others provide information about social reality, and partly because conformity may be socially rewarding (Suls and Wills, 1991; Bartholomew et al., 2001). Generally, however, adolescents hardly communicate about sexuality and AIDS prevention. Most adolescents have only vague ideas about what their peers think and do in this regard. Perceptions of group norms regarding safe sex might be cleared up by providing information about the way peers respond to sexuality and AIDS prevention, and by enhancing communication among young people about these issues.

Research on group polarization has shown that group discussions may strengthen the initial position of the group members: the exchange of arguments and comparison of views favor a prediscussion position (Isenberg, 1986; Bartholomew, 2001). Mobilization of positive social influence is part of the social network approach, assuming that the norms of the network are in favor of the desired AIDS preventive behavior change. This implies, however, that group discussion may lead to a risky shift when the average prediscussion position of the group favors unsafe sex.

Table 5. Analysis of the Second HIV/AIDS Curriculum in Benin (Ministère de la Santé, de la Protection, et de la Condition Féminine et al., 1997)

Themes adapted from UNAIDS/ WHO/ UNESCO model	Information and facts	Personal risk perception	Social norms	Communi-cation skills	Decision-making skills	Negotia-tion skills	Assertive-ness and empathy	Practi-cal skills	Adaptation to actual sexual behavior
Basic Knowledge: STIs	+	+	+	0	0	0	+/-	x	+
Basic Knowledge: HIV/AIDS	+	+	+	0	0	0	+	x	+
Emotions and Sexuality	0	0	0	0	0	0	0	n/a	n/a
Relationship of Girls and Boys	+/-	+/-	+/-	0	0	0	+/-	n/a	n/a
Responsible Behavior: Delaying sex	+	+	+	0	0	0	+	n/a	+
Responsible Behavior: Consistent condom use	+	+	+	0	0	0	+	+/-	+
Pregnancy Prevention	0	0	+	0	0	0	0	0	n/a
Care and Support to PLWHA	+	+	+	0	0	0	+/-	+/-	n/a

+: Largely discussed

+/-: Discussed with limitations

x: No differentiation by age/gender

0: Not discussed

n/a: Not applicable

See Annex 7 for a full description of the Teacher's Manual.

In addition, people have different social environments, some of which support change and some of which do not. Techniques for building up resistance to social pressure include explanation of the different kinds of pressure and demonstrating coping responses, refusal skills, and commitment procedures for resistance in future pressure situations, including seeking out social support. Skills training based on psychological inoculation (McGuire, 1964; Bartholomew, 2001), social inoculation (Evans et al., 1991; Bartholomew, 2001), vicarious learning, and modeling (Bandura, 1986; Bartholomew, 2001) may improve people's ability to cope with group pressure regarding sexuality and AIDS prevention.

In Benin and Togo, the curricula largely focus on the need for compassion, care, and support for PLWHA. However, in Benin this is done through texts derived from different sources (e.g., UNDP, WHO, etc.) and though testimony of national PLWHA representatives. The problem with this approach is the lack of availability of PLWHA because stigma is still high, so the approach may backfire.

Self-Efficacy and Skills

Apart from the mere demonstration of condom use, the curricula fail to address the steps one has to take for consistent condom use (purchasing condoms and taking them along when having a date) as well as negotiation skills and assertiveness regarding delaying sex or having protected sex.

3.3.4 Life Skills Education Targeting In- and Out-of-School Adolescents

A good example of a Life Skills education program targeting in- and out-of-school adolescents is the U.S. Peace Corps' Life Skills project in Malawi (see table 6, next page). The program targets both school-going and out-of-school adolescents. It has a strong component of peer educator training or community or teachers leaders training.

The program was implemented in Mzimba Boma, Malawi, in late 1995–96 as a pilot project with the support of Peace Corps volunteers and health workers. Following the success of the pilot project, the Life Skills project was disseminated in the district with support from UNICEF (UNICEF, n.d.). The Ministry of Education (MOE) is now working with UNICEF and other partners to introduce Life Skills into the curricula in Malawi's schools.

This program largely draws on materials created by WHO, UNESCO, ActionAid, the Curriculum Development Unit in MOE/Zimbabwe, and UNICEF. In addition to providing critical information on STIs/HIV/AIDS, personal risk perception, alcohol, and drug use, the manual concentrates on development of such skills as communication, decision-making, thinking, managing emotions, assertiveness, building self-esteem, resisting peer pressure, and relationships (Peace Corps, 2000). Additionally, it addresses the important related issues of empowering girls and new values for boys.

The approach is completely interactive, using roleplays, Forum Theater, games, puzzles, group discussions, and a variety of other innovative teaching techniques to keep participants wholly involved in the sessions.

The manual consists of more than 50 different lesson ideas that teachers and trainers can adapt and use with different groups. It also provides clear guidance to users regarding planning (short participatory methods for understanding the problems at hand and developing the program), schedule, selection of techniques, and evaluation.

Table 6: Analysis the U.S. Peace Corps **Life Skills Education Manual** (Peace Corps, 2000)

Themes adapted from UNAIDS/ WHO/ UNESCO model	Information and facts	Personal risk perception	Social norms	Communi-cation skills	Decision-making skills	Negotia-tion skills	Assertive-ness and empathy	Practi-cal skills (condom use)	Adaptation to gender, culture, and actual sexual behavior
Basic Knowledge: STIs	+	+	+	+	+	+	+	xxx	+
Basic Knowledge: HIV/AIDS	+	+	+	+	+	+	+	xxx	+
Emotions and Sexuality	+	+	+	+	+	+	+	xxx	+
Relationship of Girls and Boys	+	+	+	+	+	+	+	xxx	+
Responsible Behavior: Delaying sex	+	+	+	+	+	+	+	xxx	+
Responsible Behavior: Consistent condom use	+	+	+	+	+	+	+	xxx	+
Pregnancy Prevention	+	+	+	+	+	+	+	xxx	+
Care and Support to PLWHA	0	0	0	0	0	0	0	n/a	n/a

+: Largely discussed

xxx: Explicit

0: Not discussed

n/a: Not applicable

Following is a list of the sessions:

Introduction to Life Skills

Session 1: The Bridge Model—How Do We Build a Bridge from Information to Behavior Change?

Session 2: Identifying the Missing Element

Communication Skills

Session 1: Communication Puzzle

Session 2: Body Language

Session 3: Assertiveness: Attack and Avoid

Session 4: Assertiveness: Passive, Assertive, Aggressive

Session 5: Assertiveness: Assertive Messages

Sessions 6 and 7: Assertiveness/Peer Pressure: Responding to Persuasion (parts 1 and 2)

Session 8: Assertiveness/Peer Pressure: Practice in Resisting Persuasion

Decision-Making Skills

Session 1: Steps in Making a Good Decision

Session 2: Just between Us

Session 3: Delaying Sex

Session 4: Exchanging Stories—Role Models (The Person I Admire)

Session 5: Imagining the Future

Session 6: Possible Futures

Session 7: Your Life Story

Session 8: Your Goals

Session 9: Teenage Pregnancy

Session 10: Alcohol and Drug Use

Session 11: Risk Behavior—Testing the Waters

Session 12: Risk Behavior—Luck Runs Out

Thinking Skills

Session 1: Debates, Invisible Theater, and Question of the Day

Session 2: The Devil's Advocate Game

Relationship Skills

Session 1: The Best Response Game

Session 2: Peer Pressure Role-Plays

Session 3: What Is Love?

Sessions 4, 5, and 6: Self-Esteem Building (Do We Have Self-Esteem? Teach Your Children Well; "A Pat on the Back")

Session 7: What are Gender Roles? Gender Cards Exercise

Session 8: Gender Picture

Session 9: Gender Roles

Session 10: Gender and Culture

Session 11: Whose Rights and Who's Right?

Session 12: Culture: The Game of Life

Session 13: Culture: High-Risk Traditions

Emotion Management Skills

Bringing It All Together

The appendices in the annex provide ideas for designing games and sessions, warm-ups and energizers, etc.

In terms of process, the Peace Corps Life Skills manual addresses the issues of adoption and large-scale dissemination of the program by anticipating and providing guidance for dealing with parents, communities, and teachers' sensitivity or resistance.

With regard to our framework, the program can be seen as very promising. Specifically, training of peer educators covers all aspects of our framework (knowledge, risk perception, attitudes and social norms, and self-esteem and self-efficacy skills). We believe teachers and peer educators will be able to adapt the program and tailor their interventions based on a needs assessment, as recommended in the manual. However, although the program covers broad issues such as alcohol and drug use, the lack of emphasis on the attitudes toward PLWHA is a major concern.

The techniques are largely described in a way that makes it easier to apply them. The manual explains why a particular technique can be powerful in a particular situation and includes pitfalls of using the technique. It provides examples of packages (contents and techniques) for different target groups. However, without guidance, users are unlikely to easily tailor the program to the needs of a specific group.

It has been reported that whenever the program is introduced and implemented, it seems to be received with much excitement. However, it has weaknesses in terms of evaluation. Although the manual strongly recommends a needs assessment before tailoring the intervention to a specific group, there is no evidence that users will take systematic steps to evaluate effects, processes, and outcomes of the intervention. Consequently, a workshop is planned on developing evaluation tools.

3.4 Lessons Learned

3.4.1 The Time to Act Is Now

Young people need Life Skills programs that reflect and respond to their needs, earn their trust, go where they are, and speak their language—that is, the language of youths and children. These programs must start early, because many young people are initiated into sex early, either voluntarily or forcibly.

Following are lessons learned from Life Skills programs and HIV/AIDS education programs in sub-Saharan Africa:

- Currently, most interventions are still based on program managers' perceptions of problems and their views of how these should be dealt with, rather than on a systematic intervention mapping and planning processes. However, randomized controlled trials (Klepp et al., 1997; Youth and Health development program, Government of Namibia, and UNICEF, 1999) have shown that Life Skills education models applied in developed countries can be successfully adapted and implemented in African cultural settings. Life Skills programs are feasible and effective for knowledge and empowerment of adolescents. Specifically, these interventions can lead to a delay in sexual initiation among sexually inexperienced adolescents. In addition, other HIV-related behaviors (violence and/or drug and alcohol use) can be altered positively as well. Some intentions regarding preventive behavior are altered, as are feelings of competency regarding various aspects of condom use and condom negotiation. However, long-term follow-up and evaluation are needed to control relapses, adjust role models, and adapt materials.

- To be effective and help prevent further spread of STIs/HIV, programs have to be implemented and diffused on a large scale. The Peace Corps volunteers' experience shows that the most successful Life Skills programs seem to be those that prepare for adoption, implementation, and large-scale dissemination of a Life Skills approach by working from an early stage with and winning the support of stakeholders (e.g., parents, local and religious leaders, youth leaders, NGOs, etc.), removing policy barriers, and changing service providers' prejudices.

- Although AIDS education is perceived as a need, it is not well planned. AIDS education is provided through family life education, along with population, environmental, and development issues, or via extracurricular activities, often in brief, intermittent sessions. As a result, young people become involved in risky behaviors before the program is completed. In addition, the overloaded school curriculum, difficulties in planning and training an array of participants, time pressures, and the examination system result in more attention being given to literacy, numeracy, and other examination subjects. Teachers lack incentives and motivation, and they see health education as an additional burden and pressure. Overall, stand-alone Life Skills programs (approximately 10 sessions) or special workshops that integrate Life Skills training within a subject like health education or biology have a better chance of succeeding than those that are infused into the curriculum.

- In most countries, teachers do not receive adequate training in suitable techniques and are reluctant to teach sex education. Usually the focus is on knowledge rather than skills, because teachers are not familiar with role-playing techniques. The predominant teaching strategies are the didactic approach and the use of textbooks. In contrast, NGOs have demonstrated the potential of innovative approaches for training of trainers, skills building, and materials development and dissemination. Life Skills programs are successful when they use participatory methods and experiential learning techniques.

- There are too few Life Skills programs in sub-Saharan Africa that target children and young people (in- and outside of school settings) with information about HIV/AIDS and that meet the criteria for minimally effective skills education programs. Class sizes are large, making it difficult to work in small groups or have single-sex health education classes or develop a more interactive approach to learning during regular hours. In addition, the lack of cooperation between ministries of education/health and NGOs means that available human resources are underused. Financial resources are often nonexistent or inappropriate for programs' needs. NGOs could help the ministries in training teachers, counseling, developing and disseminating materials, and offering referral services.

- Life Skills programs must start early, because many young people are initiated into sex early, either voluntarily or forcibly. At present, family life education often starts in the third or fourth year of secondary school, when most students have already had sexual experiences and are learning about sexuality by themselves or through their peers. Reaching out-of-school adolescents has not yet been fully addressed. Interventions targeting these adolescents are still sporadic and must rely on the resources and motivation of local NGOs.

- So far, curriculum developers have paid little attention to effect, process, and outcome evaluations. A well-planned development and evaluation process (starting with a needs assessment and systematic thinking about learning objectives, theories, methods, strategies, and techniques) could improve the quality of HIV/AIDS education. The

effects and outcomes of potential programs are unlikely to be evaluated in the absence of a baseline assessment, an evaluation component built in before implementation, and a budget allocated for the process.

- Other lessons learned include the need to enlist children and young people in program design and delivery, to tell young people specifically what they need to do, and to help them to rehearse the interpersonal skills needed to avoid risks.

- Finally, it is crucial to link information and advice with services that make safe behavior attractive and to invest enough—for long enough—to make a difference.

Many sub-Saharan African countries are just beginning to explore the concept of Life Skills and how to advocate for it to be accepted and adopted into the education systems. Governments and NGOs need to work together to advocate for Life Skills programs to be understood and accepted as a national strategy and a component of reproductive health programs for all children and adolescents, including those both in and out of school. Working in collaboration with national authorities, donors, and UN agencies should build the capacity of the education sector to design, implement, monitor, and evaluate Life Skills programs and related activities in all countries. This calls for a concerted effort to create an enabling environment and to strengthen human resources.

3.4.2 Conclusion and Recommendations

Are We on the Right Track?

Life Skills education can help to improve the health and well-being of adolescents in the face of the HIV/AIDS epidemic. However, not all initiatives are equally successful. With regard to AIDS and adolescents, the primary way to prevent further spread of the virus is to influence sexual behavior as well as the environmental conditions that place adolescents at risk. So far, programs that are likely to succeed are based on a clear understanding of the targeted health behaviors (e.g., early sex and unprotected sex) and their environmental context. The programs are developed and managed using strategic planning models and are continually improved on the basis of meaningful evaluation.

Most models and theories are products of research in developed countries, with a few applications in some English-speaking African countries. However, they do provide a good framework for informing current practices. The obstacles to applying theories in sub-Saharan Africa include time constraints and insufficient resources, both financial and human, for carrying out extensive, systematic research. National authorities and donors should invest resources in program design and evaluation.

Accurate knowledge about successful strategies and operational skills should be passed on. Programs should focus more on self-risk perception, self-efficacy, and skills regarding communication and help seeking. Research—before intervention development—regarding adolescents' preferred HIV prevention strategies, gender/age differences with regard to sexuality, and abstinence or condom use could make it possible to enhance the impact of these interventions. In addition, continuous monitoring and evaluation could help document cultural factors and changes in behaviors and inform the fine-tuning of the learning objectives and teaching techniques.

Overall, according to substantial experience in countries around the world (Kirby, 1995; UNESCO, 1991), the following features were common characteristics of programs that successfully delayed first sexual intercourse and/or increased condom use:

- Social influence, social learning, or cognitive-behavioral theories underpinned the interventions.
- The programs focused specifically on delaying intercourse and avoiding unprotected intercourse.
- The interventions were at least 14 hours in length, or work was done in small groups to optimize the use of time in shorter programs.
- A range of interactive activities, such as role-playing, discussion, and brainstorming, were used so that participants personalized the risks and were actively involved in developing strategies.
- Clear statements were given about the outcomes of unprotected sex and how those outcomes could be avoided.
- The social influences of peers and media to have sex or unprotected sex were identified, and strategies to respond to and deal with such pressures were generated.
- There was clear reinforcement of values supporting the aims of the programs and the development of group norms against unprotected sex relevant to the age and experience of the participants.
- Programs that included activities allowing participants to observe communication and negotiation skills in others—and rehearse them themselves—succeeded better at getting adolescents to delay their first intercourse or use protection during sex.
- There was effective training for those who led the interventions.

The general limit of the present study is the lack of sound evaluation reports. Partnerships with knowledgeable institutions in both developed and developing countries could help reduce this gap and improve programs' effectiveness.

Are We Serious in Dealing with the Epidemic?

As stated earlier, most models and theories of Life Skills education programs are products of research in developed countries, with only a few applications in some English-speaking African countries. Educational programs, therefore, may require extensive adaptation to local conditions to be culture-sensitive (McKenzie, 1997). Theories provide a good framework for a teaching program, but when applying theories, one must consider cultural practices that may be either harmful or helpful.

Too often, culture is perceived as a barrier. Yet it should not be used as excuse for neglecting to take action. Culture is not necessarily coherent within a group, nor is it static. Rather, the cultural norms and values that are transmitted from one generation to another change as new knowledge and understanding are gained and a society's own traditions mix with those of other societies.

In conclusion, although many countries are planning to include Life Skills education in regular school curricula, implementation of such programs requires further analysis and planning, negotiation, and teacher preparation. NGOs must be stimulated to address the needs of out-of-school adolescents in cooperation with school authorities, teacher-training programs, and community leaders. An evaluation component built in during the development process and including a behavioral survey can assist in the complex process of choosing target groups and designing interventions for those groups, and can provide evaluative indicators.

For the education sector to respond to the AIDS threat, we need to increase awareness of the nature of the epidemic, analyze approaches to strengthen the education system's coping responses, and enable participants at all levels of school and society to respond to the challenges of the epidemic. This will require a strong commitment across governmental sectors, donors, and key participants—including, above all, the youth of Africa.

Annexes

Annex 1:
Matrix for Analyzing Life Skills Curricula

	Characteristics
Target group(s)	
Products	
Number of Lessons	
Content/Goals	
Themes	
Basic knowledge of STIs/HIV/AIDS	
Relationship of/between girls and boys and responsible parenthood	
Purchase/use condoms	
Responsible behavior: delaying sex	
Responsible behavior: protected sex	
Antidiscrimination, care and support	
Learning objectives	
AIDS/STI knowledge	
Values, attitudes, beliefs, intentions	
Learning activities	
Text and discussion	
Group discussion	
Role-plays, games	
Questionnaire	
Demonstration	
Buying condoms	
Site visit	
Duration	
Evaluation	

Annex 2:
Theoretical Framework for Analyzing Curricula

This framework posits that the likelihood of behavior change depends on the following essential components:

Intention (or commitment) to use condoms (or to delay sexual activity): *"The stronger the adolescent's plan to use condoms, the greater the likelihood that s/he will, in fact, use condoms."* Intention is one of the immediate determinants of behavior; students must form a strong positive intention (or make a commitment) to perform the desired behavior. However, intention depends on many other factors, such as attitude toward condom use (or delaying sex), social influence (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980), and self-efficacy (Bandura, 1986; Gottlieb, 2001), as well as skills to negotiate or use condoms (or delay sex).

Knowledge about STIs/AIDS to understand the risk (awareness): *"If adolescents are not aware of STIs/AIDS, they won't feel a need to change their behavior."* Knowledge is a necessary precondition for behavior change (Catania et al., 1990). Before behavior change is likely to occur, adolescents must know about personal risk factors (behaviors or conditions that place them at risk) and the ways in which these factors can be reduced (alternative behaviors). Although knowledge is necessary, it is not sufficient to motivate or activate behavior change. In addition, there are hindrances to gaining accurate knowledge, principal among them being inaccessibility of information (Schaalma and Kok, 1995).

Personal risk perceptions: *"If adolescents think they are not at risk, they won't feel a need to change their behavior."* When adolescents continue to think they are outside the high-risk groups, they won't see the danger. Perceived susceptibility refers to adolescents' subjective perception of their own risk of contracting HIV infection (e.g., Am I at risk for HIV?). Perceived severity refers to the magnitude of harm expected from HIV/AIDS or the significance or seriousness of the threat (e.g., How hard would my life be if I got AIDS?).

Attitudes, beliefs, and expectations about preventive actions: *"If adolescents are not convinced that changing their behavior will reduce the risk of HIV infection, or if risk reduction has serious disadvantages, they may decide not to change their behavior."* For adolescents to adopt condom use, they must believe that condoms are effective against HIV transmission, and must realize that the advantages of using condoms (anticipated positive outcomes—e.g., "If I start using condoms, I can avoid HIV infection") outweigh the disadvantages (anticipated negative outcomes—e.g., "Condoms reduce the pleasure of lovemaking"). In addition, if adolescents believe that using condoms is inconsistent with their self-image, they will not commit themselves to respect the dignity of others as human beings and take responsibility for their actions. An adolescent must, therefore, perceive that condom use is more consistent than inconsistent with his/her self-image, or that condom use does not violate personal standards that activate negative self-sanctions.

Social influences (social support and social pressure): *"If adolescents are motivated to comply with their friends', partners', or parents' opinions, and if they believe their friends, partners, or parents do not feel a need for risk-reducing behavior, they may decide that it doesn't make sense to change their own behavior."* Because action does not take place in isolation from others, any change in behavior needs to be negotiated with those who are important in the lives of adolescents. Therefore, the more adolescents perceive social support for using a condom ("My partner insists that we always use a condom") rather than social pressure not to use condoms ("Using a condom? My boyfriend will beat me up!"), the greater the likelihood they will change their behavior.

Behavioral control and self-efficacy perception: *"If adolescents assume they are not able to change their behavior, they may decide not to even try."* When adolescents judge themselves to be effective, they are confident in their ability to overcome the difficulties of changing and maintaining a specific behavior. This includes adolescents' confidence in their ability to regulate their motivation, thought processes, emotional states, and physical and social environment in order to attain their behavioral goals. When adolescents believe they are at risk for a serious or significant threat, and they believe they are able to prevent it from occurring, they are motivated to control the danger. When adolescents are motivated to control the danger, they change their attitudes, intentions, and behaviors. These changes result in the individual's adoption of behavioral recommendations ("I know AIDS is a killer disease, but finally I think I can avoid it by using condoms"). Conversely, when adolescents believe they are at risk for an HIV infection, but they believe they are unable to perform the recommended response, or they believe the recommended response to be ineffective, then they focus on controlling their fear about AIDS. Yet when adolescents control their fear, they do not control the actual danger; instead, they deny they are at risk for HIV transmission, defensively avoiding the threat, or reacting angrily toward those trying to help them (e.g., "It's too overwhelming, I'm just going to not think about it." "I don't want to know anything about AIDS, I'm just going to block out anything I hear about it.")

Skills to perform behavior: Finally, *"if adolescents don't have the necessary skills to purchase and use condoms, they will not use them effectively or consistently."* One reason knowledge gains do not lead inevitably to behavior change is a lack of the skills necessary to perform the behavior. Adoption of a new health-promoting behavior often requires enactment of a constellation of complex cognitive, social, behavioral, and self-regulatory skills (Bandura, 1986, 1991; Bartholomew, 2001). These skills include the ability to recognize situations that may lead to sexual coercion (a cognitive skill), the ability to negotiate condom use with a regular or casual sexual partner or delay sexual activities (a social skill), the ability to use a condom properly (a behavioral skill), and the ability to adhere to a previously made decision to engage only in safe sex (a self-regulatory skill). Without the necessary skills to support a new healthy behavior, adolescents are unlikely to initiate the change and even less likely to sustain it.

No constraints or barriers to condom use (or the delay of sexual debut): *"If condoms are not affordable to students, obviously it will be impossible for students to use them consistently."* Lack of available, accessible, and affordable condoms is a real barrier to consistent condom use, along with demographic characteristics that prevent girls and younger students from acquiring condoms. In addition, in some parts of the continent, negative cultural practices dictate that a girl's first sexual encounter should take place when she is still very young, sometimes barely a teenager. These contextual factors or environmental conditions were out of the scope of this study, yet it is important that they, too, be addressed.

Annex 3:
Matrix for Comparing Different Curricula

	Family Life Education Manuals	HIV/AIDS Manuals	Peace Corps Manual
Products			
Target group			
Content			
Learning objectives			
Learning activities			
Cost			

Annex 4:
Characteristics of STIs/AIDS Component in Family Life Education Curriculum in the Central African Republic

	Characteristics
Target group(s)	
Schools	Secondary schools
Products	Teacher manual, videos
Number of Lessons	2 to 3 sessions per year
Content/Goals	· STIs: gonorrhea, syphilis, mycosis · HIV AIDS · Prevention, responsible sexual behavior · Treatments for STIs · Impact on household, health system, and AIDS · Condoms · Reason for inconsistent condom use, attitude toward these values, arguments for condom use
Themes	
Relationship of girls and boys and responsible parenthood	+/- Adopt responsible sexual behavior
Basic knowledge of STIs/ HIV/AIDS	STIs: Define STIs; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs; adopt responsible sexual behavior AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish the relationship between AIDS, morbidity, and mortality
Purchase/use condoms	0
Responsible behavior: Delaying sex	Normative appeals
Responsible behavior: Protected sex	Normative appeals
Antidiscrimination Care and support	0

Learning objectives	
AIDS/STI knowledge	Year 1: Family economics (third quarter) · STIs: Gonorrhea—symptoms in women and men, transmission, developmental stages, treatment, prevention (hygiene, condom, abstinence) · STIs/AIDS: STI definition, list of common STIs in the environment, number of partners and spread of STIs/AIDS, links between STIs/AIDS and mortality, prevention, responsible sexuality · AIDS: Causes of AIDS, definition of HIV, HIV transmission, prevention of HIV transmission Year 2: Family economics · Define family budget, cost of care for PLWHA, explain how STIs contribute to degradation of family's quality of life · Third quarter: child care, STIs, and syphilis–Define syphilis as type of STI, symptoms in women and men, transmission, developmental stages, treatment, prevention · Third quarter: child care and AIDS–Explain meaning of HIV-positive, cite different means for AIDS diagnosis, identify different means of HIV transmission (sexual transmission, objects, mother to child, blood transfusion), prevention of AIDS Year 3: French lesson · To acquire words and expressions: pandemic, incommensurate, pariah; identify social problems related to AIDS in the text; argue for responsible sexual behavior Form 4: (wrap- up) · Mycosis: Identify mycosis as STI, list symptoms in women and men, list different transmission modes, developmental stages, explain how lack of hygiene contributes to mycosis, means of prevention · Recall ratio: Patients/hospital beds, patients/number of doctors, patients/dispensaries, patients/nurses; determine STI/HIV prevalence in CAR; explain why weak health system coverage leads to high STI/HIV prevalence; establish link between low health coverage and STI/AIDS prevalence · Second quarter: Condoms–definitions of condom and unwanted pregnancy, list different types of condoms, distinguish female and male condoms, identify different reasons for inconsistent condom use, explain why condom use prevents STIs and unwanted pregnancy, arguments for condom use · STIs: Define STI; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs · AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish relationship between AIDS , morbidity and mortality
Values, attitudes, beliefs, intentions	Identify the values associated with inconsistent condom use, adopt critical attitude toward these values, arguments for condom use Adopt responsible sexual behavior
Learning activities	
Text and discussion	+
Group discussion	?
Role-play, games	0
Questionnaire	0
Demonstration	0
Buying condoms	0
Site visit	?
Duration	?
Evaluation	None (Project monitoring)

Annex 5:
Characteristics of STIs/AIDS Component in Family Life Education Curriculum in Mali

	Characteristics
Target group(s)	
Schools	Secondary schools
Out-of-school	-
Products	Teacher manual, videos
Number of Lessons	2 to 3 per year?
Content/Goals	· STIs/HIV/AIDS · Prevention, responsible sexual behavior · What to do in case of STIs and AIDS · Condoms · Reason for inconsistent condom use, attitude toward these values, arguments for condom use
Relationship between girls and boys and responsible parenthood	+/- adopt responsible sexual behavior
Basic knowledge of STIs/ HIV/AIDS	STIs: Define STIs; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs; adopt responsible sexual behavior AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish the relationship between AIDS, morbidity, and mortality
Purchase/use condoms	0
Responsible behavior: delaying sex protected sex	+/- adopt responsible sexual behavior
Antidiscrimination Care and support	0
Learning objectives	
AIDS/STI knowledge	Sciences: Study of sexual organs in women and men: · STIs: List the most frequent STIs in Mali, define each of them, including HIV/AIDS · STIs/AIDS: Symptoms and developmental stages of STIs, including HIV/AIDS · Identify cause of STIs/AIDS · Describe means of preventing STIs/AIDS · Present oneself at the health post in case of STI and AIDS · Discuss risk of STIs and AIDS on family's health · Explain treatments for STIs
Values, attitudes, beliefs intentions	Adopt responsible sexual behavior, present oneself at the health post in case of STIs and AIDS
Personal risk perception	0
Self-efficacy and skills	0

Successful communication skills	0
Learning activities	
Brainstorming	+
Text and discussion	+
Group discussion	+
Role-play	?
Questionnaire	0
Demonstration	0
Buying condoms	0
Site visit	?
Duration	?
Evaluation	None (Project monitoring)

Annex 6:
Characteristics of STIs/AIDS Component in Family Life Education Curriculum in Togo

	Characteristics
Target group(s)	Primary and secondary schools
Products	Teacher manual, videos
Number of Lessons	3 to 5 sessions per year
Content/Goals	**Primary school, Years 1–2** · AIDS, identify traditional risky practices · We can live with PLWHA · Prevention is better than cure · Value of care and support (what to do with PLWHA) · Prevention of HIV transmission (sharing toothbrushes, sharp objects) **Secondary school, Years 3–4** · Define AIDS, list risk behaviors, estimate severity of AIDS · List modes of transmission (mother-to-child transmission [MTCT], sex, unsafe blood contact) · Identify traditionally risky practices, ways in which HIV is not transmitted · Living with PLWHA, prevention is better than cure · Prevention of HIV transmission (sharing tooth brushes, sharp objects) · Attitudes towards PLWHA **Years 5–6** · Define AIDS, define STIs, list biologic fluids in which you can find HIV · Identify risky behaviors, including sex; estimate severity of AIDS · Explain why it is difficult to identify a person living with HIV · Explain advent of some diseases in relation to the HIV infection · Modes of transmission, identify traditionally risky practices, ways in which HIV is not transmitted · Living with PLWHA, what to do with PLWHA · STI treatment reduces HIV transmission, why? STI symptoms, list centers for STIs/AIDS counseling and prevention, means of prevention · Estimates and statistics in Togo, impact · Identify risky situations in relation to peer pressure · Prevention (prostitution, condoms)
Relationship between girls and boys and responsible parenthood	+/- adopt responsible sexual behavior
Basic knowledge on STIs/ HIV/AIDS	STIs: Define STIs; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs; adopt responsible sexual behavior AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish the relationship between AIDS, morbidity, and mortality
Purchase/use condoms	0

Responsible behavior: Delaying sex	+
Responsible behavior: Protected sex	+
Anti discrimination Care and support	+

Learning objectives	
AIDS/STI knowledge	**Year 1: Family economics (third quarter)** · STIs: Gonorrhea–symptoms in women and men, transmission, developmental stages, what to do in case of gonorrhea, prevention (hygiene, condom, abstinence) · STIs/AIDS: STIs definition, list of common STIs in the environment, number of partners and spread of STIs/AIDS, links between STIs/AIDS and mortality, prevention, responsible sexuality · AIDS: Causes of AIDS, definition of HIV, HIV transmission and prevention **Year 2: Family economics** · Define family budget, cost of care for PLWHA, explain how STIs contribute to the degradation of the family's quality of life · Third quarter: puericuture STIs and syphilis–Define syphilis as type of STI, symptoms in women and men, transmission, developmental stages, what to do in case of syphilis, prevention · Third quarter: child care and AIDS–Explain HIV-positive, cite different means of diagnosing AIDS, identify different ways of HIV transmission (sexual transmission, objects, MTCT, blood transfusion), prevention of AIDS **Year 3: French lesson** · To acquire words and expressions: pandemic, incommensurate, pariah; identify social problems related to AIDS in the text; argue for responsible sexual behavior **Form 4: (wrap-up)** · Mycosis: Identify mycosis as STI, list symptoms in women and men, list different transmission modes, developmental stages, explain how lack of hygiene contributes to mycosis, means of prevention · Recall ratio: Patients/hospital beds, patients/number of doctors, patients/dispensaries, patients/nurses, determine STI/HIV prevalence in Togo, explain why weak health system coverage leads to high STI/HIV prevalence, establish the link between low health coverage and STI/AIDS prevalence · Second quarter: Condoms–Definitions of condom and unwanted pregnancy, list different types of condoms, distinguish female and male condoms, identify different reasons for inconsistent condom use, explain why condom use prevents STIs and unwanted pregnancy, arguments for condom use · STIs: Define STIs; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs · AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish the relationship between AIDS, morbidity and mortality
Values, attitudes, beliefs, intentions	Identify the values associated with inconsistent condom use, adopt critical attitude toward these values, arguments for condom use, adopt responsible sexual behavior
Personal risk perception	+/-
Self-efficacy and skills	0
Successful communication skills	0
Learning activities	
Text and discussion	+

Group discussion	+
Role play	+
Questionnaire	0
Demonstration	+
Buying condoms	0
Site visit	?
Duration	?
Evaluation	None (Project monitoring)

Annex 7:
Characteristics of STIs/AIDS Component in Family Life Education Curriculum in Benin

	Characteristics
Target group(s)	
Schools	Secondary schools
Out-of-school	-
Products	Teacher manual, videos
Number of Lessons	2 to 3 per year
Content/Goals	· STIs: gonorrhea, syphilis, mycosis · HIV/AIDS · Prevention, responsible sexual behavior · Treatment for STIs · Impact on household, health system and AIDS · Condoms · Reason for inconsistent condom use, attitude toward these values, arguments for condom use
Relationship between girls and boys and responsible parenthood	+/- adopt responsible sexual behavior
Basic knowledge of STIs/ HIV/AIDS	STIs: Define STIs; list STIs in the environment, transmission of each STI, and symptoms and developmental stages of each STI; explain why high STI prevalence causes morbidity and mortality; acquire means of preventing STIs; adopt responsible sexual behavior AIDS: Define AIDS, cite virus responsible for AIDS, list different transmission modes, define HIV-positive, cite AIDS symptoms, identify means of diagnosing AIDS, describe the developmental stages of AIDS, means of prevention, establish the relationship between AIDS, morbidity, and mortality
Purchase/use of condoms	0
Responsible behavior: delaying sex protected sex	+
Antidiscrimination Care and support	+
Learning objectives	
AIDS/STI knowledge	
Values, attitudes, beliefs, intentions	+
Personal risk perception	0
Self-efficacy and skills	0
Successful communication skills	0

Learning activities	
Brainstorming	+
Text discussion	+
Case studies	+
Slides, brochures, leaflets, text posters, discussion	+
Group discussion	0
Role play	0
Group work	+
Resource person	+
Questionnaire	0
Demonstration	0
Buying condoms	0
Lecture themes	AIDS issues, a new plea for AIDS, AIDS and human rights, AIDS and youth, AIDS and the environment, women and AIDS, government's role, care and support, beliefs, therapeutic itinerary, research, AIDS in the world, AIDS and religion, socioeconomic impact, condom use
Testimonies (PLWHA)	+
Site visit	+
Duration	?
Evaluation	None (Project monitoring)

Annex 8:
Excerpt from WHO Publications

Defining Life Skills

Life Skills are abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life. Described in this way, skills that can be said to be Life Skills are innumerable, and the nature and definition of Life Skills are likely to differ across cultures and settings. However, analysis of the Life Skills field suggests that there is a core set of skills that are at the heart of skills-based initiatives for the promotion of the health and well-being of children and adolescents. These are listed below:

Decision-making helps us to deal constructively with decisions about our lives. This can have consequences for health if young people actively make decisions about their actions in relation to health by assessing the different options and what effects different decisions may have.

Similarly, **problem-solving** enables us to deal constructively with problems in our lives. Significant problems that are left unresolved can cause mental stress and give rise to accompanying physical strain.

Creative thinking contributes to both decision-making and problem-solving by enabling us to explore the available alternatives and various consequences of our actions or nonaction. It helps us to look beyond our direct experience, and even if no problem is identified or no decision is to be made, creative thinking can help us to respond adaptively and with flexibility to the situations of our daily lives.

Critical thinking is an ability to analyze information and experiences in an objective manner. Critical thinking can contribute to health by helping us to recognize and assess the factors that influence attitudes and behavior, such as values, peer pressure, and the media.

Effective communication means that we are able to express ourselves, both verbally and nonverbally, in ways that are appropriate to our cultures and situations. This means being able to express opinions and desires, but also needs and fears. And it may mean being able to ask for advice and help in a time of need.

Interpersonal relationship skills help us to relate in positive ways with the people we interact with. This may mean being able to make and keep friendly relationships, which can be of great importance to our mental and social well-being. It may mean keeping good relations with family members, which are an important source of social support. It may also mean being able to end relationships constructively.

Self-awareness includes our recognition of ourselves, our character, and our strengths and weaknesses, desires and dislikes. Developing self-awareness can help us to recognize when we are stressed or feel under pressure. It is also often a prerequisite for effective communication and interpersonal relations, as well as for developing empathy for others.

Empathy is the ability to imagine what life is like for another person, even in a situation that we may not be familiar with. Empathy can help us to understand and accept others who may be very different from ourselves, which can improve social interactions, for example, in situations of ethnic or cultural diversity. Empathy can also help to encourage nurturing behavior towards people in need of care and assistance, or tolerance, as is the case with AIDS sufferers, or people

with mental disorders, who may be stigmatized and ostracized by the very people they depend upon for support.

Coping with emotions involves recognizing emotions in ourselves and others, being aware of how emotions influence behavior, and being able to respond to emotions appropriately. Intense emotions, like anger or sorrow, can have negative effects on our health if we do not react appropriately.

Coping with stress is about recognizing the sources of stress in our lives, recognizing how this affects us, and acting in ways that help to control our levels of stress. This may mean that we take action to reduce the sources of stress, for example, by making changes to our physical environment or lifestyle. Or it may mean learning how to relax, so that tensions created by unavoidable stress do not give rise to health problems.

The Life Skills described above are dealt with here insofar as they can be taught to young people as abilities that they can acquire through learning and practice. For example, problem solving, as a skill, can be described as a series of steps to go through, such as: (1) define the problem; (2) think of all the different kinds of solutions to the problem; (3) weigh up the advantages and disadvantages of each; (4) chose the most appropriate solution and plan how to realize it. Examples of lessons designed to facilitate Life Skills acquisition are included on pages 71-80.

Inevitably, cultural and social factors will determine the exact nature of Life Skills. For example, eye contact may be encouraged in boys for effective communication, but not for girls in some societies, so gender issues will arise in identifying the nature of life skills for psychosocial competence. The exact content of Life Skills education must therefore be determined at the country level, or in a more local context. However, described in general terms, Life Skills are being taught in such a wide variety of countries that they appear to have relevance across cultures.

The teaching of Life Skills appears in a wide variety of educational programs with demonstrable effectiveness, including programs for the prevention of substance abuse (Botvin et al., 1980, 1984; Pentz, 1983) and adolescent pregnancy (Zabin et al., 1986; Schinke, 1984), the promotion of intelligence (Gonzalez, 1990), and the prevention of bullying (Olweus, 1990). Educational programs teaching these skills have also been developed for the prevention of AIDS (WHO/GPA, 1994; Scripture Union, undated), peace education (Prutzman et al., 1988), and the promotion of self-confidence and self-esteem (TACADE, 1990). Teaching Life Skills in this wide range of promotion and prevention programs demonstrates the common value of Life Skills for health promotion, beyond their value within any specific program.

Teaching Life Skills as generic skills in relation to everyday life could form the foundation of Life Skills education for the promotion of mental well-being and healthy interaction and behavior. More problem-specific skills, such as assertively dealing with peer pressures to use drugs, have unprotected sex, or become involved in vandalism, could be built on this foundation. There are research indications that teaching skills in this way, as part of broad-based Life Skills programs, is an effective approach for primary prevention education (Errecart et al., 1991; Perry and Kelder, 1992; Caplan et al., 1992).

The model below shows the place of Life Skills as a link between motivating factors of knowledge, attitudes, and values, and positive health behavior, in this way contributing to the primary prevention of health problems.

Life Skills enable individuals to translate knowledge, attitudes, and values into actual abilities—i.e., "what to do and how to do it." Life skills are abilities that enable individuals to behave in

	Year 1 (Level 1)	Year 2 (Level 2)	Year 3 (Level 3)
Self-awareness	Learning about "me as a special person"	Self-control	My rights and responsibilities
Empathy	Understanding how people are alike and how we differ, and learning to appreciate the differences between people	Avoiding prejudice and discrimination of people who differ	Caring for people with AIDS
Interpersonal relationship skills	Learning to value relationships with friends and family	Forming new relationships and surviving loss of friendships	Seeking support and advice from others in a time of need
Communication	Basic verbal and nonverbal communication skills	Assertive communication in the face of peer pressure	Using assertiveness to resist pressure to do potentially health damaging activities (e.g., unprotected sex)
Critical thinking	Learning the basic processes in critical thinking	Making objective judgements about choices and risks	Resisting media influence on attitudes towards smoking and alcohol
Creative thinking	Developing capacities to think in creative ways	Generating new ideas about things that are taken for granted	Adapting to changing social circumstances
Decision-making	Learning basic steps for decision-making	Making difficult decisions	Decision-making about important life plans
Problem-solving	Basic steps for problem-solving	Generating solutions to difficult problems or dilemmas	Conflict resolution
Coping with stress	Identifying sources of stress	Methods for coping in stressful situations	Coping in situations of adversity
Coping with emotions	Recognition of the expression of different emotions	Understanding how emotions affect the way we behave	Coping with emotional distress

healthy ways, given the desire, scope, and opportunity to do so. They are not a panacea; "how to do" abilities are not the only factors that affect behavior. If the model above was placed within a larger, more comprehensive framework, there would be many factors that relate to the motivation and ability to behave in positive ways to prevent health problems. These factors include such things as social support, and cultural and environment factors.

Effective acquisition and application of Life Skills can influence the way we feel about ourselves and others, and equally will influence the way we are perceived by others. Life Skills contribute to our perceptions of self-efficacy, self-confidence, and self-esteem. Life Skills therefore play an important role in the promotion of mental well-being. This in turn contributes to our motivation to look after ourselves and others, the prevention of mental disorders, and the prevention of health and behavior problems.

An example outline of a Life Skills education program, based on titles of Life Skills lessons covering these three levels, is illustrated above. The model is fictional, and is only intended to illustrate how a Life Skills program can be put together to cover a broad-based foundation in Life Skills. This can be built on so that students have the opportunity to practice the skills relevant to important health issues. The example shows 30 Life Skills lessons taught over a period of three years.

Designing a Life Skills Program for Flexible Implementation

The most important material of the Life Skills program is likely to be a teaching manual, which provides detailed descriptions of each lesson. The teaching manual should also include the following:

- an introduction to Life Skills education—describing the rationale, theory, values, and methodology;
- activities to support the Life Skills lessons—for example, warm-up activities to help the students feel more comfortable working in groups;
- activities that facilitate the development of Life Skills that the children can do at home and with their families;
- activities that facilitate the development of Life Skills that may be carried out with friends or in community projects.

Since Life Skills education will be new for most teachers and trainers, the format must be clear and concise so that users can easily understand the approach, pedagogy, and structure of the sessions described. For example, each of the skills lessons could be set out using the same format, as below.

- Lesson purpose and goal
- Learning objectives
- Listing and explanation of materials needed for the lesson
- Background information, helpful hints, and relation to other lessons or to the national curriculum
- Lesson activities
- Exploring and discovering
- Connecting new concepts and skills
- Practice new skills
- Apply skills to life situations
- Evaluation (processing questions)
- Homework assignments
- Additional resources and activities related to the lesson

Life Skills Program Materials to Accompany the Teaching Manual

Life Skills programs often include a student workbook for the child or adolescent to use in conjunction with the skills lessons. Also, students are often asked to write about their feelings and what they have learned in their own personal journals. If these additional materials are not available or affordable, all materials can be incorporated within the teaching manual, and when

required, reproduced for the children by the teacher on the board, or other such visual display facilities.

Other support materials might include:

- An introduction to Life Skills education for parents describing the rationale and objectives of Life Skills education and providing suggestions of activities that they can do with their children at home.

- A guide to assist teachers' work with parents. This might include an agenda for meetings with parents, and suggestions for ways that teachers can encourage parental support for their child's or children's acquisition and practice of Life Skills.

- An introduction to Life Skills education for school principals, emphasizing the potential benefits of Life Skills education for the institutional goals of the school, as well as the need for review periods and ongoing training for teachers once the program is implemented.

- A leaflet describing Life Skills education for other teachers and for school health personnel, school social workers etc., and for community members that should be informed of the content and objectives of Life Skills education.

Annex 9:
Elements of a Skills-Based Health Education for HIV/AIDS Prevention (UNICEF).

Reviews of school-based HIV/AIDS prevention programs—23 studies in the United States (Kirby et al., 1994); 37 in other countries (reported in UNAIDS, 1999a), and 53 studies in the United States, Europe, and elsewhere (UNAIDS, 1997a)—have identified the following common characteristic actions of successful programs:

- A focus on a few specific behavioral goals (such as delaying initiation of intercourse or using protection), which requires knowledge, attitude, and skill objectives.
- Provision of basic, accurate information that is relevant to behavior change, especially about the risks and methods of avoiding unprotected intercourse.
- Reinforcement of clear and appropriate values to strengthen individual values and group norms against unprotected sex.
- Modeling and practice in communication and negotiation skills particularly, as well as other related "Life Skills."
- Use of social learning theories as a foundation for program development.
- Addressing social influences on sexual behaviors, including the important role of media and peers.
- Use of participatory activities (games, role-playing, group discussions, etc.) to personalize information, explore attitudes and values, and practice skills.
- Extensive training for teachers/implementers to allow them to master the basic information about HIV/AIDS and to practice and become confident with Life Skills training methods.
- Support for reproductive health and HIV/STD prevention programs by school authorities, decision- and policy-makers, and the wider community.
- Evaluation (e.g., of outcomes, design, implementation, sustainability, school, student and community support) so that programs can be improved and successful practices encouraged.
- Age-appropriateness, targeting students in different age groups and developmental stages with appropriate messages that are relevant to young people. For example, one goal of targeting younger students, who are not yet sexually active, might be to delay initiation of intercourse; whereas, for sexually active students, the emphasis might be to reduce the number of sexual partners and to use condoms.
- Gender sensitivity for both boys and girls.

Another useful resource is the Leeds Health Education Database, which contains interventions to control AIDS and sexually transmitted diseases, January 2002.
www.hubley.co.uk/db-aids.htm#part17

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